MILLERS FALLS TOOLS

SINCE 1868

CATALOG No. 40

James B. Lambie Company
[redacted] New York Avenue
Washington, D. C.

MILLERS FALLS COMPANY
MILLERS - FALLS - MASS.
U. S. A.

Millers Falls Company

E. P. STOUGHTON . . Chairman
PHILIP ROGERS . . . President JOHN W. SMEAD . Vice-President
GEO. U. HATCH . . Vice-President GEO. W. NIMS . . . . Treasurer
E. D. HOLTBY . . Secretary and Asst. Treasurer

Catalog No. 40
January, 1929

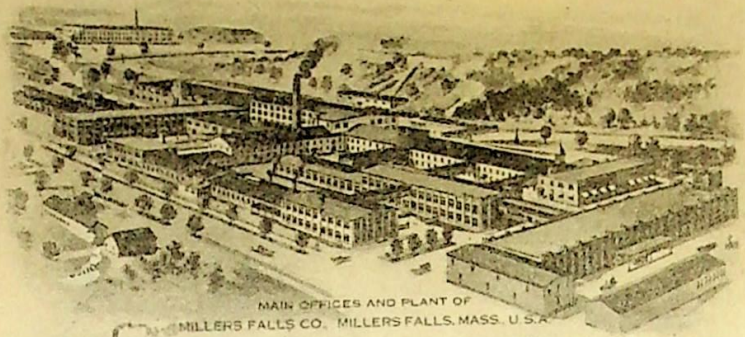
Main Office and Works
MILLERS FALLS, MASS., U. S. A.

Factories
Millers Falls, Mass., U. S. A.
West Haven, Conn., U. S. A.
Brattleboro, Vt., U. S. A.

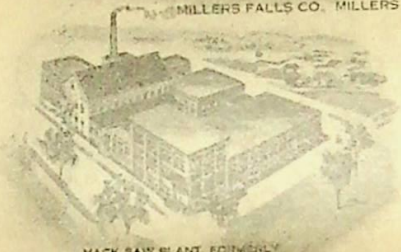
Chicago Office and Warehouse
9 So. Clinton St.
Chicago, Ill., U. S. A.

Export Office
28 Warren Street
New York City
U. S. A.

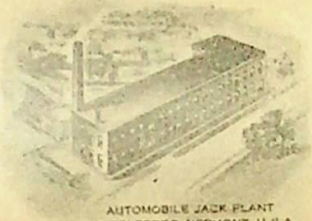
CABLE ADDRESS: "MILLERFALL" NEW YORK
Codes: A. B. C. 5th Edition, Lieber's
Western Union, Bentley's



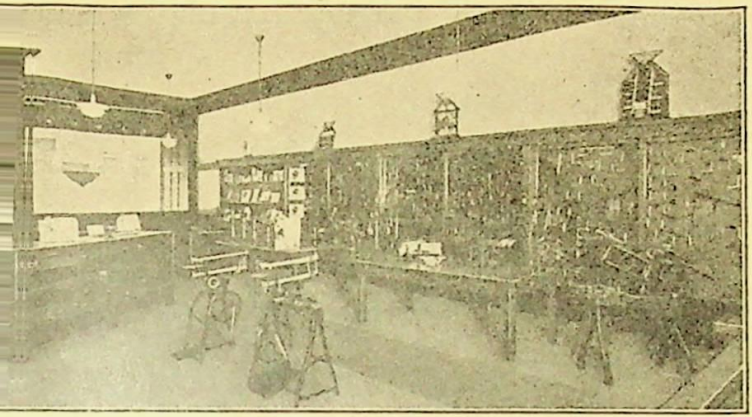
MAIN OFFICES AND PLANT OF
MILLERS FALLS CO. MILLERS FALLS, MASS. U.S.A.



HACK SAW PLANT, FORMERLY
WEST HAVEN MFG. CO., WEST HAVEN, CONN., U.S.A.



AUTOMOBILE JACK PLANT
BRATTLEBORO, VERMONT, U.S.A.



The New York Home
and Export Office
of Millers Falls Products
28 Warren Street

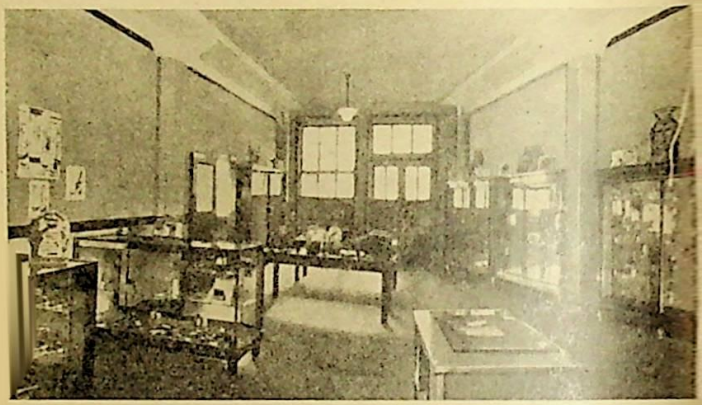
THE Millers Falls Company has maintained a New York office for over sixty years.

The first New York office was opened in November, 1868 at Number 87 Beekman Street. After occupying three other locations, it was finally moved in May, 1898 to Number 28 Warren Street, its present address, in the heart of a wholesale hardware district.

In November, 1919, an opportunity was afforded to purchase the property. The building, consisting of five stories and two basement floors, was thoroughly renovated and remodeled throughout, and no expense spared to make it one of the finest office buildings of its kind in the vicinity. The upper floors are rented to high class firms as offices and showrooms while the MILLERS FALLS COMPANY occupies the entire ground floor and basements.

Number 28 Warren Street is headquarters for the Export Department, and its showrooms are open to all customers who wish to become acquainted with Millers Falls products, at first-hand, and to save the time and expense of a trip to the factory in Millers Falls, Massachusetts. A cordial invitation is extended to the trade throughout the world, to visit this exhibition of Carpenters' and Mechanics' Tools, Hack Saw blades, Automobile Jacks and accessories at any and all times.

The Chicago Office



CHICAGO OFFICE AND WAREHOUSE
9 South Clinton Street, Chicago

In order to better serve our very large and rapidly growing Western trade we have established a Chicago Office and Warehouse. Our line of tools is attractively displayed and readily accessible to visitors who may wish to examine and inspect same. A complete stock, including extra parts, is carried at all times in quantities sufficient to care for every reasonable sized requisition.

When next in Chicago come in and pay us a visit. We will be very glad to place every facility at your disposal.

FOREWORD

OUR new catalog No. 40 supersedes catalog No. 39 issued in January, 1925. A comparison of the two catalogs will impress our customers with the fact that this four year period has been one of growth and expansion for Millers Falls Company.

A complete line of carpenters' and masons' levels is one of the newer additions. We invite special attention to a new line of planes which is being announced with the issue of this catalog. We believe that the quality of this plane line will impress our customers and it seems feasible that Millers Falls planes will sell as readily as other Millers Falls tools.

We are constantly endeavoring to improve the quality and appearance of our products as well as to anticipate the requirements of our trade in these days of constant change of styles and methods.

We take this opportunity to thank our customers very cordially for their loyal co-operation during the past sixty years.

MILLERS FALLS COMPANY
Millers Falls, Mass., U. S. A.

January, 1929.

TERMS

All goods are sold F. O. B. cars. Factory—either Millers Falls, Mass., Brattleboro, Vt. or West Haven, Conn. Export shipments are F. A. S. New York City, on 100 lb. lots or more. Smaller shipments F. O. B. factories, freight allowed to New York City.

Invoices are payable in New York or Boston funds, net 30 days from date rendered, or less 2% cash discount, if paid within ten days.

Remittances should be mailed to our Main Office at Millers Falls, Mass.

GUARANTEE

Every tool stamped "Millers Falls" is warranted free from defects in material and in workmanship. Should any tool show such a defect, we will repair or replace it free of charge.

ELECTROTYPES

For the convenience of our customers, who issue catalogs, or other printed matter, we offer two sizes of electrotypes for each of our tools, one of the size used in this catalog; the other approximately 2 1-4" wide for one column use. These are supplied without charge.

RETURNED GOODS

We cannot accept for credit goods returned without permission.

Shipping instructions should be obtained for any goods to be returned for any reason other than for repair.

PLANES

With this catalog Millers Falls Company presents a new line of bench and block planes. It seems logical to add a line which is so kindred to other well-known Millers Falls carpenters' and mechanics' tools. Nothing has been spared to produce a product of excellent quality and appearance.

Material—Bottoms and frogs of fine grey iron castings, suitably ribbed to prevent springing when in use. Plane irons made of special crucible cast steel, insuring exceptional cutting efficiency. Handles and knobs of selected rosewood.

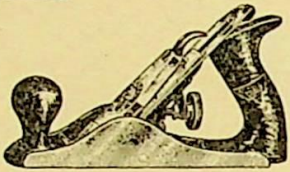
Finish—Plane bottoms bright finish on bottom and sides with tops enameled black. Frogs enameled red. Lever cap polished and nickel plated.

Features—Lever cap of two piece design clamping the plane iron securely to the frog and preventing chattering. One piece lateral adjusting lever of pressed metal.

MILLERS FALLS ADJUSTABLE IRON PLANES

New Line

Handles and knobs of selected rosewood
End and side adjustment of cutters



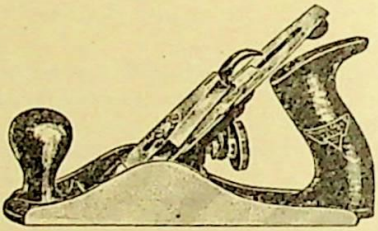
(Corrugated Bottom)

Smooth Bottom

No. 7 Smooth, length 7 in., cutter 1⅝ in., wt. 2¼ lbs.	Price each	$3.75	*Code—Eaxex*
No. 8 Smooth, length 8 in., cutter 1¾ in., wt. 3⅛ lbs.	Price each	3.90	*Code—Eaxer*

Corrugated Bottom

No. 8C Smooth, length 8 in., cutter 1¾ in., wt. 3⅛ lbs.	Price each	4.15	*Code—Eaxet*

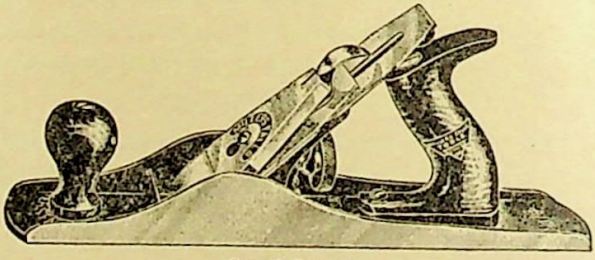


Smooth Bottom

No. 9 Smooth, length 9 in., cutter 2 in., wt. 3¾ lbs.	Price each	$4.20	*Code—Eaxes*
No. 10 Smooth, length 10 in., cutter 2⅜ in., wt. 4½ lbs.	Price each	4.90	*Code—Eaxat*

Corrugated Bottom

No. 9C Smooth, length 9 in., cutter 2 in., wt. 3¾ lbs.	Price each	4.45	*Code—Eaxev*
No. 10C Smooth, length 10 in., cutter 2⅜ in., wt. 4½ lbs.	Price each	4.90	*Code—Eaxor*



Smooth Bottom

No. 14 Jack, length 14 in., cutter 2 in., wt. 4¾ lbs.	Price each	$4.80	*Code—Eaxuy*
No. 11 Jack, length 11½ in., cutter 1¾ in., wt. 3½ lbs.	Price each	4.35	*Code—Eaxit*
No. 15 Jack, length 15 in., cutter 2¼ in., wt. 6¾ lbs.	Price each	5.55	*Code—Earls*

Corrugated Bottom

No. 14C Jack, length 14 in., cutter 2 in., wt. 4¾ lbs.	Price each	5.05	*Code—Earad*
No. 15C Jack, length 15 in., cutter 2¼ in., wt. 6¾ lbs.	Price each	5.85	*Code—Earcq*

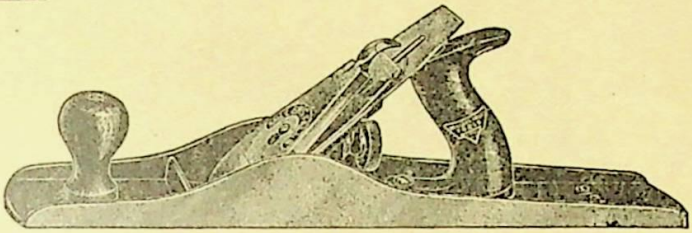
Packed one in a box.

MILLERS FALLS ADJUSTABLE IRON PLANES

Handles and knobs of selected rosewood

End and side adjustment of cutters

New Line

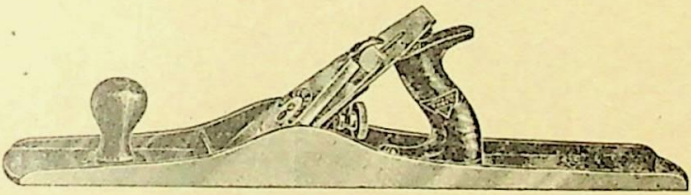


Smooth Bottom

No. 18 Fore, length 18 in., cutter 2⅜ in., wt. 6¼ lbs..... Price each $6.25 *Code—Eabon*

Corrugated Bottom

No. 18C Fore, length 18 in., cutter 2⅜ in., wt. 6¼ lbs..... Price each 6.55 *Code—Eacor*



Smooth Bottom

No. 22 Jointer, length 22 in., cutter 2⅜ in., wt. 8⅛ lbs..... Price each $7.15 *Code—Eader*

No. 24 Jointer, length 24 in., cutter 2⅜ in., wt. 9¾ lbs..... Price each 8.50 *Code—Eacul*

Corrugated Bottom

No. 22C Jointer, length 22 in., cutter 2⅜ in., wt. 8⅛ lbs..... Price each 7.45 *Code—Eafer*

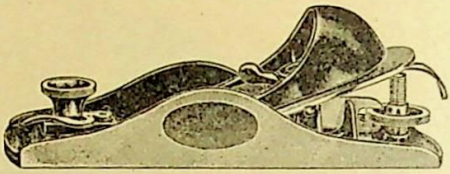
No. 24C Jointer, length 24 in., cutter 2⅜ in., wt. 9¾ lbs..... Price each 8.95 *Code—Eagol*

Packed one in a box.

MILLERS FALLS ADJUSTABLE BLOCK PLANES

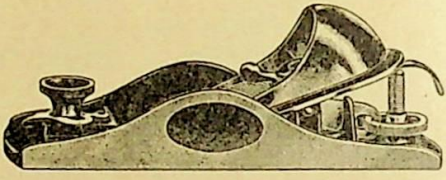
End and side adjustment of cutters. Also has adjustable throat.

New Line



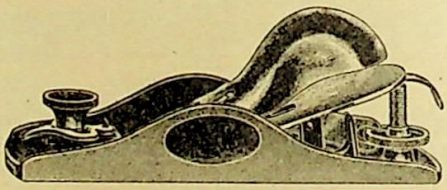
Japanned Trimming

No. 16 length 6 in., cutter 1⅝ in., wt. 1½ lbs..... Price each $2.20 *Code—Ebens*
No. 17 length 7 in., cutter 1⅝ in., wt. 1⅝ lbs..... Price each 2.35 *Code—Eborg*



Nickel Trimming

No. 26 length 6 in., cutter 1⅝ in., wt. 1½ lbs..... Price each $2.50 *Code—Ebony*
No. 27 length 7 in., cutter 1⅝ in., wt. 1⅝ lbs..... Price each 2.70 *Code—Ebrol*



No. 36 length 6 in., cutter 1⅝ in., wt. 1½ lbs..... Price each $2.85 *Code—Ebrag*
No. 37 length 7 in., cutter 1⅝ in., wt. 1⅝ lbs..... Price each 3.10 *Code—Ebrel*

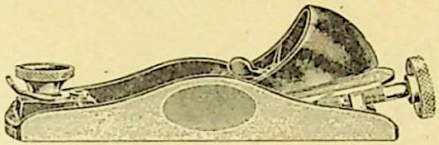
Packed one in a box.

MILLERS FALLS ADJUSTABLE BLOCK PLANES

End and side adjustment of cutters.

New Line

Low angle, adjustable throat.

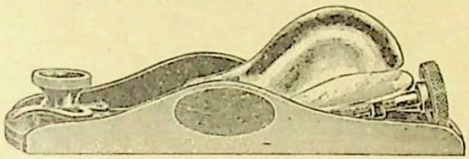


Japanned Trimming

No. 56 length 6 in., cutter 1⅜ in., wt. 1¼ lbs. ..... Price each $2.35 *Code—Ecrow*
No. 57 length 7 in., cutter 1⅜ in., wt. 1⅜ lbs. ..... Price each 2.50 *Code—Ectol*

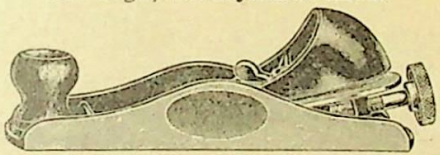
Nickel Trimming

No. 46 length 6 in., cutter 1⅜ in., wt. 1¼ lbs. ..... Price each 2.55 *Code—Ecmug*



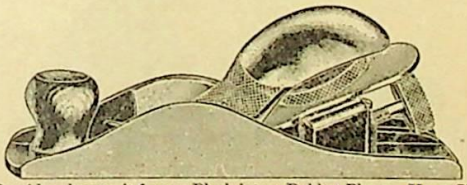
No. 47 length 7 in., cutter 1⅝ in. Nickel trimming, wt. 1⅜ lbs. Price each $3.00 *Code—Ectro*

Low angle, non-adjustable throat



No. 66 length 6 in., cutter 1⅜ in. Nickel trimming, wt. 1¼ lbs. Price each $2.25 *Code—Ecpek*

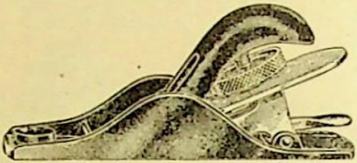
Block and Rabbet



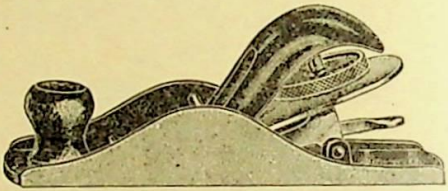
By removing the sides changes it from a Block into a Rabbet Plane. Has a Skew cutter.
No. 07 length 7 in., cutter 1¾ in., Japan trimming, wt. 1⅛ lbs. Price each $2.95 *Code—Escow*
Packed one in a box.

MILLERS FALLS ADJUSTABLE BLOCK PLANES

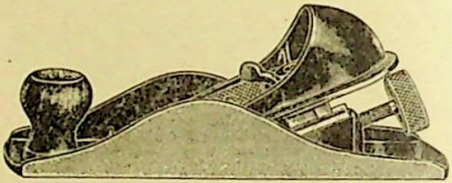
New Line



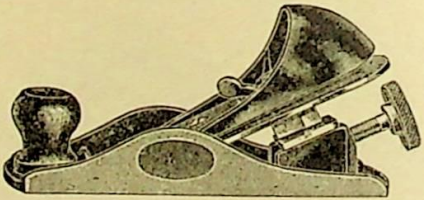
No. 55 length 5½ in., cutter 1⅜ in. Lever adjustment, wt. 7/8 lbs. Price each $1.15 *Code—Edels*



No. 97 length 7 in., cutter 1⅝ in. Lever adjustment, wt. 1⅜ lbs. Price each $1.60 *Code—Edans*



No. 75 length 7 in., cutter 1⅝ in. Screw adjustment, wt. 1½ lbs. Price each $1.65 *Code—Edral*

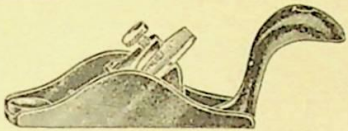


No. 45 length 5½ in., cutter 1⅜ in. Screw adjustment, wt. 1⅛ lbs. Price each $1.45 *Code—Edrox*

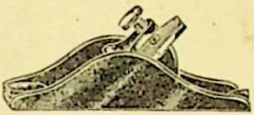
Packed one in a box.

MILLERS FALLS NON-ADJUSTABLE BLOCK PLANES

New Line



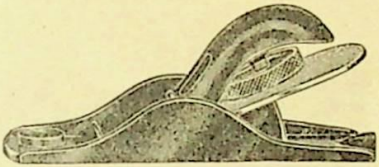
No. 3



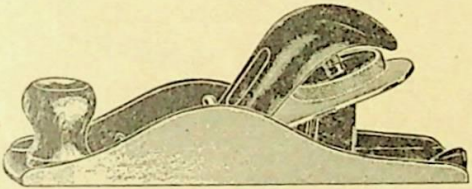
No. 33

No. 3 length 3½ in., cutter 1 in., wt. ⅜ lb. . . . . Price each $0.55 *Code—Edruy*

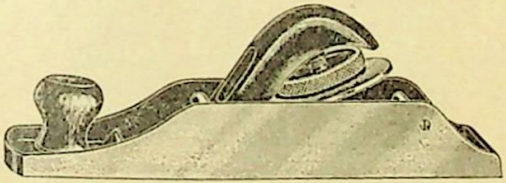
No. 33 length 3½ in., cutter 1 in., wt. ¼ lb. . . . . Price each $ .45 *Code—Edool*



No. 5 length 5½ in., cutter 1⅝ in., wt. ⅞ lb. . . . . Price each $ .80 *Code—Edwad*



No. 87 length 7 in., cutter 1⅝ in., wt. 1⅜ lbs. . . . . Price each $1.15 *Code—Edolt*



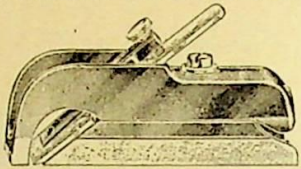
With two slots and two cutter seats.

No. 68 length 8 in., cutter 1⅝ in., wt. 1⅝ lbs. . . . . Price each 1.65 *Code—Edf*

Packed one in a box.

MILLERS FALLS PLANES

New Line

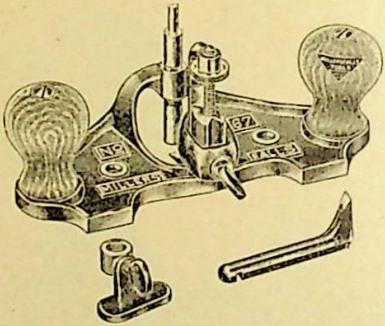


Bull Nose Rabbet

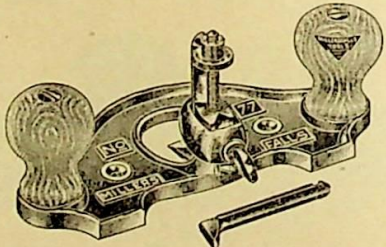
Especially adapted for working in close quarters, such as corners, etc.

No. 4 length 4 in., cutter 1 inch. Japanned finish, wt. ⅝ lb..... Price each $0.70 *Code—Efz*

Router Planes



No. 67 length 7½ in., with two cutters (one each, ¼ and ½ in.). Cutters can be held on the front of cutter post for regular work or on the back for bull nose work. An attachment is furnished for closing the throat for narrow surface work and regulating depth of cut.
Nickel plated, wt. 2⅝ lbs..... Price each $3.90 *Code—Efrue*



No. 77 length 7½ in., with two cutters (one each, ¼ and ½ in.).
Nickel plated, wt. 2⅛ lbs..... Price each $3.10 *Code—Efrad*

Packed one in a box.

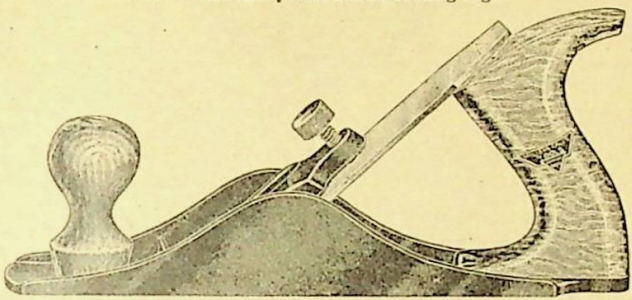
MILLERS FALLS PLANES

Handles and Knobs of Hard Wood

New Line

Scrub Planes

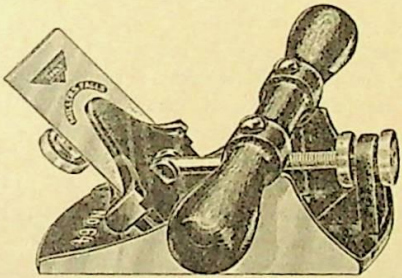
Cutter extra heavy with round cutting edge



No. 9½ length 9½ in., cutter 1⅛ in., wt. 2½ lbs. . . . . Price each $2.35 *Code—Egger*
No. 10½ length 10½ in., cutter 1½ in., wt. 2¼ lbs. . . . Price each 3.65 *Code—Egram*

Scraper Planes, Double Handle

Rosewood handle



No. 64 length 6¼ in., cutter 2⅜ in. Japanned. Wt. 3¾ lbs... Price each $4.70 *Code—Eglat*
Extra blade, each $0.50.

No. 65

With Wood Bottom

No. 65 length 6¼ in., cutter 2⅜ in. Japanned. Wt. 4 lbs..... Price each $6.40 *Code—Egort*
Extra rosewood bottom, each $0.50. Extra blade, each $0.50.

Packed one in a box.

MILLERS FALLS LEVELS

This line is complete with twelve different styles of levels and thirty-nine numbers, which include carpenters' and masons' levels in pine, mahogany and aluminum. A level is worthless unless it is accurate. Millers Falls levels are of the non-adjustable type which insures absolute accuracy before leaving the factory.

Extra heavy glass protects the spirit tubes against dirt, moisture and breakage. Wood levels are treated with three coats of weather-proof finish. The pine is clear grained, aged before used, and will not shrink, check or warp. The mahogany is imported from South America and is the finest which can be purchased. Each piece is aged between six and twelve months before being used. Aluminum levels will not warp or rust in any climatic conditions.

The Millers Falls Company will endeavor to make the best levels that can be made in line with its policy of sixty years experience in the building of good tools.

MILLERS FALLS CARPENTERS' LEVELS

ew Line

Made of carefully selected, thoroughly Air Dried White Pine and Mahogany, each piece being t to stand from six to twelve months before being made into finished stock, thereby insuring solute accuracy.

All Wood Levels are covered with three coats of weather-proof finish. Hand Grips give uniform rength and prevent warping.

All Levels have White Openings, giving clear view of the Plumb and Level Vials.

White Pine Levels for Carpenters' or Household Use

Red Finish

No. 312 Plain—12" x 2½" x 1¼", 1 plumb, 1 level, wt. 1 lb. ..... each $1.10
No. 316 Plain—16" x 2½" x 1¼", 1 plumb, 1 level, wt. 1 lb. ..... each 1.15
No. 318 Plain—18" x 2½" x 1¼", 1 plumb, 1 level, wt. 1 lb. ..... each 1.20
No. 320 Plain—20" x 2½" x 1¼", 1 plumb, 1 level, wt. 1 lb. ..... each 1.25
No. 324 Plain—24" x 2½" x 1¼", 1 plumb, 1 level, wt. 1½ lbs. ..... each 1.50
No. 326 Plain—26" x 2½" x 1¼", 1 plumb, 1 level, wt. 1½ lbs. ..... each 1.55
No. 328 Plain—28" x 2½" x 1¼", 1 plumb, 1 level, wt. 1½ lbs. ..... each 1.60
No. 330 Plain—30" x 2½" x 1¼", 1 plumb, 1 level, wt. 1½ lbs. ..... each 1.65

All Plumbs and Levels furnished with Protected Glasses

Carpenters' White Pine Levels

Red Finish

No. 124 Plain—24" x 2½" x 1¼", 2 plumbs, 2 levels, wt. 1½ lbs. ..... each $2.25
No. 126 Plain—26" x 2½" x 1¼", 2 plumbs, 2 levels, wt. 1½ lbs. ..... each 2.30
No. 128 Plain—28" x 2½" x 1¼", 2 plumbs, 2 levels, wt. 1½ lbs. ..... each 2.35
No. 130 Plain—30" x 2½" x 1½", 2 plumbs, 2 levels, wt. 1½ lbs. ..... each 2.40

All Plumbs and Levels furnished with Protected Glasses

All Levels packed one in a box.

CARPENTERS' WHITE PINE LEVELS

New Line

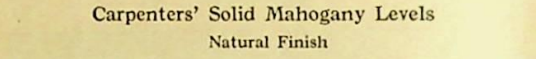
Red Finish

No. 224 Brass Bound—24″ x 2½″ x 1¼″, 2 plumbs, 2 levels, wt. 1½ lbs. . . . . each $3
No. 226 Brass Bound—26″ x 2½″ x 1¼″, 2 plumbs, 2 levels, wt. 1½ lbs. . . . . each 4
No. 228 Brass Bound—28″ x 2½″ x 1¼″, 2 plumbs, 2 levels, wt. 1¾ lbs. . . . . each 4
No. 230 Brass Bound—30″ x 2½″ x 1¼″, 2 plumbs, 2 levels, wt. 1¾ lbs. . . . . each 4

All Plumbs and Levels furnished with Protected Glasses

Carpenters' Solid Mahogany Levels

Natural Finish



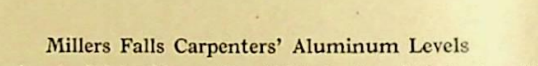
No. 624 Plain—24″ x 2½″ x 1¼″, 2 plumbs, 2 levels, wt. 1½ lbs. . . . . each $3
No. 626 Plain—26″ x 2½″ x 1¼″, 2 plumbs, 2 levels, wt. 1½ lbs. . . . . each 3
No. 628 Plain—28″ x 2½″ x 1¼″, 2 plumbs, 2 levels, wt. 1¾ lbs. . . . . each 3
No. 630 Plain—30″ x 2½″ x 1¼″, 2 plumbs, 2 levels, wt. 1¾ lbs. . . . . each 3

All Plumbs and Levels furnished with Protected Glasses

All Levels packed one in a box.

Millers Falls Carpenters' Aluminum Levels

Light, sturdy and well designed frame. Round White Openings which give clear vision. Leveling surface, ends and circular openings finished in red.



No. 1012 Aluminum—12″ x 2¼″ x 1⅛″, 2 plumbs, 2 levels, wt. 1¼ lbs. . . . . each $4.0
No. 1018 Aluminum—18″ x 2¼″ x 1⅛″, 2 plumbs, 2 levels, wt. 1¾ lbs. . . . . each 4.7
No. 1024 Aluminum—24″ x 2¼″ x 1⅛″, 4 plumbs, 2 levels, wt. 2 lbs. . . . . each 6.0
No. 1026 Aluminum—26″ x 2¼″ x 1⅛″, 4 plumbs, 2 levels, wt. 2¼ lbs. . . . . each 6.2
No. 1028 Aluminum—28″ x 2¼″ x 1⅛″, 4 plumbs, 2 levels, wt. 2½ lbs. . . . . each 6.5
No. 1030 Aluminum—30″ x 2¼″ x 1⅛″, 4 plumbs, 2 levels, wt. 2¾ lbs. . . . . each 6.7

All Plumbs and Levels furnished with Protected Glasses

All Levels packed one in a box.

MILLERS FALLS MASONS' LEVELS

New Line

Made of carefully selected, thoroughly Air Dried White Pine and Mahogany, each piece being left to stand from six to twelve months before being made into finished stock, thereby insuring absolute accuracy.

All Wood Levels are covered with three coats of weather-proof finish. Hand Grips give uniform strength and prevent warping.

All Levels have White Openings, giving clear view of the Plumb and Level Vials.

Masons' White Pine Levels
Red Finish

No. 442 Plain—42" x 2½" x 1¼", 2 plumbs, 1 level, wt. 2½ lbs. ..... each $3.00
No. 448 Plain—48" x 2½" x 1¼", 2 plumbs, 1 level, wt. 2½ lbs. ..... each 3.25

All Plumbs and Levels furnished with Protected Glasses

Masons' White Pine Levels
Red Finish

No. 542 Plain—42" x 2½" x 1¼", 4 plumbs, 2 levels, wt. 2½ lbs. ..... each $4.00
No. 548 Plain—48" x 2½" x 1¼", 4 plumbs, 2 levels, wt. 2½ lbs. ..... each 4.25

All Plumbs and Levels furnished with Protected Glasses

Masons' White Pine Levels
Red Finish

No. 742 Brass Bound—42" x 2½" x 1¼", 4 plumbs, 2 levels, wt. 3½ lbs. ..... each $6.00
No. 748 Brass Bound—48" x 2½" x 1¼", 4 plumbs, 2 levels, wt. 3½ lbs. ..... each 6.50

All Plumbs and Levels furnished with Protected Glasses

All Levels packed one in a box.

MASONS' OVAL HOLE WHITE PINE LEVELS

New Line

Red Finish

No. 842 Brass Ends, 42" x 2½" x 1¼", 4 plumbs, 2 levels, wt. 2½ lbs. ..... Price each
No. 848 Brass Ends, 48" x 2½" x 1¼", 4 plumbs, 2 levels, wt. 2½ lbs. ..... Price each

No. 942 Brass Bound, 42" x 2½" x 1¼", 4 plumbs, 2 levels, wt. 3½ lbs. ..... Price each
No. 948 Brass Bound, 48" x 2½" x 1¼", 4 plumbs, 2 levels, wt. 3½ lbs. ..... Price each

All Plumbs and Levels furnished with Protected Glasses

Masons' Oval Hole Natural Finish Solid Mahogany

No. 642 Brass Ends, 42" x 2½" x 1¼", 4 plumbs, 2 levels, wt. 3½ lbs. ..... Price each
No. 648 Brass Ends, 48" x 2½" x 1¼", 4 plumbs, 2 levels, wt. 3½ lbs. ..... Price each

All Plumbs and Levels furnished with Protected Glasses

Masons' Aluminum Levels

No. 1042 Aluminum, 42" x 2¼" x 1⅛", 4 plumbs, 2 levels, wt. 3 lbs. ..... Price each $10.00

All Plumbs and Levels furnished with Protected Glasses

All Levels packed one in a box.

AUTOMATIC TOOLS

For a number of years Millers Falls Company have been recognized as making a superior line of automatic tools, which embraces automatic drills, spiral ratchet screw drivers and ratchet screw drivers. There have been a number of improvements made in the drills and screw drivers which have strengthened them considerably, thereby adding to their service.

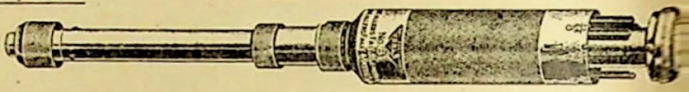
Since our previous catalog, has been added the "one way spiral screw driver" No. 51 and No. 510 series, also Automatic Drill No. 248. In addition to these, we have also added a high grade line of solid screw drivers, No. 224 series with regular blade and No. 336 series with cabinet blade. We believe that this line is complete with a range that will meet every requirement.

This Automatic Line is one the Millers Falls Company is proud of. Nothing but the best materials obtainable are used and the greatest care taken in its manufacture. All possess the highest finish.

It is our belief that these lines merit the worthy consideration of the consumer, dealer and jobber.

AUTOMATIC DRILL

Improved No. 81



The feature of this drill is the simplicity of design and construction of the magazine and ha
By turning the knurled nut on the lower end of the handle, the handle is released and s
down on the frame, exposing all of the points. Selection of desired point is quickly made.
Knurled nut locks magazine securely and quickly so there is no chance of losing points.
Metal partitions in magazine keep each point in place. Size of point plainly marked ag
each compartment.
The handle is of convenient size to fit the hand comfortably.

Specifications

Eight drill points. Improved ball chuck.
Improved shell cannot be completely unscrewed and lost.
Handle handsomely knurled. Spiral nut of Tobin bronze.
Highly polished and nickeled overall.

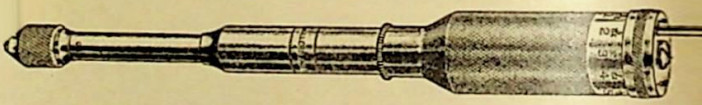
Length 10½ in. Weight each, 9 oz. Price each, $2

Code—Delsa

Packed one in a box.

AUTOMATIC DRILL

No. 180



The main point of difference between this drill and No. 81 is in the method of removing th
drills from the handle. Instead of the handle pulling down, the cap revolves permitting the dri
to be tipped out into the hand. Pressing a catch releases the cap easily. Locks securely.

Specifications

Improved ball chuck holds with positive grip the eight specially notched points supplied wit
drill.
Steel handle, handsomely knurled.
Center nut, Tobin bronze, exceptionally long wearing.
Brass spirals. Polished and nickeled overall.

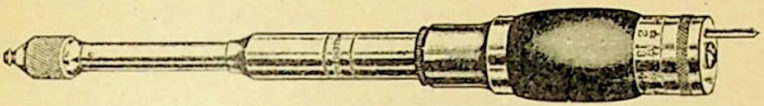
Length 10½ in. Weight each, 10 oz. Price each, $2.6

Code—Deser

Packed one in a box.

AUTOMATIC DRILL

No. 79



This drill is identical with No. 180, except that a portion of the handle is of stained hardwood, shaped to give a firm, comfortable grip.

Specifications

Improved ball chuck holds with positive grip the eight specially notched points supplied with drill. Center nut, Tobin bronze, exceptionally long wearing. Brass spirals. Polished and nickeled overall.

Length 10½ in. Weight each, 10 oz. Price each, $2.45

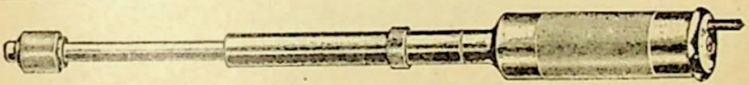
Code—Desti

Packed one in a box.

AUTOMATIC DRILL

New Tool

No. 248



This new addition to the Millers Falls line of Automatic Tools has been made to meet the demand for a popular priced Automatic Drill in which the quality of material and workmanship have not been forgotten. It is constructed of steel very heavily plated, and fits the hand wonderfully well. Due to a new principle, and anti-friction device, it operates very smoothly and easily and will give exceptionally long service.

The magazine within this Handle contains 8 Drill Points which are removed by pressing a small catch and turning cap until desired size is seen. The Chuck is of the improved type and holds the Drill Points firmly.

All parts are heavily Nickel Plated.

Length overall, 10¼ in. Weight, 9 oz.

List Price, $1.95 *Code—Detoc*

AUTOMATIC DRILL

No. 445

Those who prefer a wooden handle will like this drill. The handle is of cocobolo wood and fits the hand comfortably. Handle is highly polished. Metal parts polished and nickeled.

Chuck and other details same as No. 180. Eight drill points furnished in wooden box.

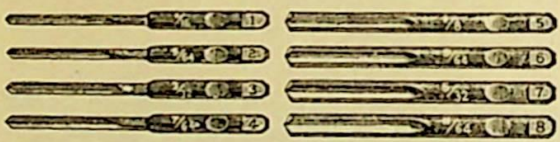
Length 11 in. Weight each, 11 oz. Price each, $2.

Code—Detos

Packed one in a box.

AUTOMATIC DRILL POINTS

New Style



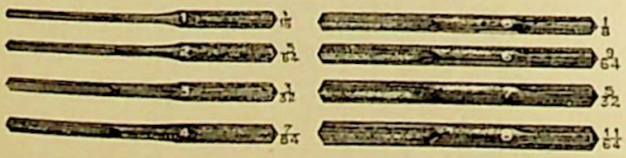
This type of point fits all automatic drills illustrated on preceding pages. Packed one set or one dozen in a wooden box.

Price per set (8 points) $.6
Code—Detot

Price per dozen $.9
Code—Detur

Old Style (Fluted Shanks)

These points with fluted shanks fit our older types of automatic drills.



Price per set (8 points) $.6
Code—Dexac

Price per doz. $.9
Code—Dexil

SPIRAL RATCHET SCREW DRIVERS

Nos. 61-62-67

Improved

An improved spiral ratchet screw driver having spiral action for driving or withdrawing screws, right and left hand ratchet movements, and a device for making it a rigid screw driver.

These several actions are plainly marked on the shifter sleeve, which is quickly and easily operated. The spiral locking device is of new design, positive in action, and especially rigid. Clean cut knurling affords an easy grip when operating shifter sleeve and locking collar. Three screw driver blades of different sizes are furnished with each tool.

Directions for Use

To Insert Blade—Pull back the chuck sleeve—insert blade and turn it to the right as far as it will go.

As Spiral Screw Driver—Set shifter sleeve at "R" or "L".

As Ratchet Screw Driver—Close spiral, give locking collar a quarter turn. This locks the spiral. Set shifter sleeve at "R" or "L".

As Rigid Screw Driver—Close spiral. Set shifter sleeve at "O" and give locking collar a quarter turn.

As Long Screw Driver—Extend the spiral to extreme length. Set shifter sleeve at desired position either ratchet or solid.

Specifications

Spiral or rod—steel, accurately machined.
Spiral Nuts—manganese bronze.
Ratchet Pawls—tool steel, hardened.
Handle—stained hardwood.

Blades—special analysis steel. Each blade individually tested.
All exposed metal parts highly polished and nickel plated. Handle is hand polished.

Nos.	67	61	62
Length, extended, with bit inserted	12⅝ in.	20½ in.	26¼ in.
Length, closed	9⅜ in.	14¼ in.	17¼ in.
Weight, each (without blades)	8 oz.	1 lb.	1 lb., 8 oz.
Weight of three blades	1½ oz.	2¼ oz.	3 oz.
Price each	$2.30	3.10	4.10
Code	*Gaily*	*Galax*	*Gabe*

Packed one in a box.

SPIRAL RATCHET SCREW DRIVERS

(Automatic Return)

Nos. 610-620-670

Improved

These screw drivers are the same design as Nos. 61, 62 and 67 with the addition of a spring in the handle.

With this spring the tool works on the principle of an automatic drill in which the handle is pushed and quickly returns for the next stroke.

It is of particular advantage in driving screws in narrow places and for overhead work where it is impossible to hold on to the chuck.

When used in connection with chuck and drills (illustrated on page 27) it offers a quick method of drilling small holes.

Specifications

The same as Nos. 61, 62 and 67, except for the spring in the handle.

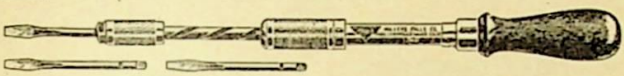
Nos.	670	610	620
Length, extended, without blades	11⅜ in.	18⅝ in.	24⅜ in.
Length, closed	8⅛ in.	12⅝ in.	16⅛ in.
Weight, each, without blades	9 oz.	1 lb., 2 oz.	1 lb., 11 oz.
Weight of three blades	1¾ oz.	2¼ oz.	3 oz.
Price each	$2.75	3.50	4.75
Code	*Galea*	*Galio*	*Galop*

Packed one in a box.

SPIRAL RATCHET SCREW DRIVERS

Nos. 51-52-57

New Tool



For the greater part of manufacturing work, spiral screw drivers are used for driving screws only. It is for this class of work that these numbers are designed.

Having fewer working parts than the regular double action spiral tool allows greater strength of construction with a consequent longer life.

Special Features

There is but one spiral action—right hand for driving screws *but* spiral can be locked and used as a solid screw driver to withdraw screws.

Improved patented ratchet mechanism increases strength and bearing surfaces at points where wear is greatest.

By removing threaded collar and spline key tool can be taken completely apart for cleaning and inspection.

Directions for Use

To Drive Screws	Turn knurled sleeve to the right as far as it will go.
To Withdraw Screws	With spiral fully compressed in handle, turn sleeve to the left as far as it will go.

Specifications

Improved Chuck—extra strong.
Spiral nuts—extra long, of manganese bronze.
Ratchet pawls—tool steel, hardened.
Handle—stained hardwood, highly polished.
Exposed metal parts—polished and nickel plated.

Nos.	57	51	52
Length, extended (bit inserted)	12⅝ in.	20½ in.	27½ in.
Length, closed (bit inserted)	9¼ in.	13⅞ in.	18 in.
Weight, each (without blades)	8 oz.	1 lb.	1 lb., 8 oz.
Weight of three blades	1½ oz.	2¼ oz.	3 oz.
Price, each	$2.30	$3.00	$3.75
Code	*Gaulo*	*Gaido*	*Gamer*

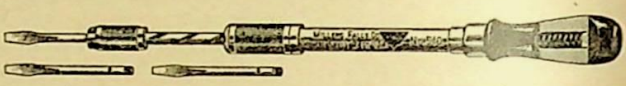
Packed one in a box.

SPIRAL RATCHET SCREW DRIVERS

(Automatic Return)

Nos. 510-520-570

New Tool



These screw drivers are the same as Nos. 57, 51 and 52, with the addition of a spring in t handle, by means of which the spiral is automatically extended for the next stroke after each p of the handle.

These numbers are of particular advantage in driving screws in narrow places for overh work, and in other places where it is difficult or impossible to hold on to the chuck.

Specifications

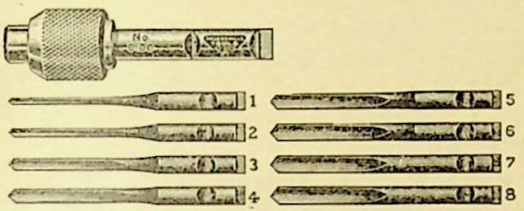
Identical with Nos. 57, 51, 52 except for the spring in the handle.

Nos.	570	510	520
Length, extended (bit inserted)	14 in.	22⅛ in.	31¼ in.
Length, closed (bit inserted)	10¹⁵⁄₁₆ in.	16 in.	20¾ in.
Weight each (without blades)	9 oz.	1 lb., 2 oz.	1 lb., 11 oz.
Weight of three blades	1½ oz.	2¼ oz.	3 oz.
Price each	$2.70	$3.30	$4.05
Code	*Gotha*	*Golor*	*Gorta*

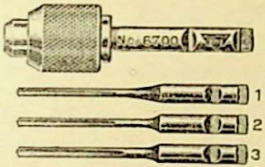
Packed one in a box.

Chuck and Drills for Spiral Ratchet Screw Drivers

Nos. 6100-6200



No. 6700



By the use of this chuck and drills a spiral ratchet screw driver is quickly converted into an efficient automatic drill for boring small holes. It adds much to the utility of these tools at a slight additional expense.

Drills can be changed without removing chuck from screw driver.

Specifications

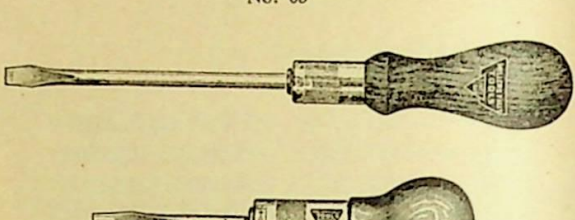
Improved ball chuck, which grips securely the specially notched drill points.
Operates the same as when driving screws.
Chuck knurled and highly polished overall.

Nos.	For use with Screw Drivers Nos.	No. of drills and and sizes	Weight	Price	*Code*
6700	67-670-57-570	3-1/16 in.-3/32 in. inc.	2 oz.	$.45	*Gamut*
6100	61-610-51-510	8-1/16 in.-11/64 in. inc.	3 oz.	.95	*Gamic*
6200	62-620-52-520	8-1/16 in.-11/64 in. inc.	4 oz.	.95	*Gamox*

Chuck and drills packed in round wooden box.

RATCHET SCREW DRIVERS

No. 63



Those who have frequent use for a screw driver will find this ratchet type much easier, speedi and more convenient than the ordinary driver.

The ratchet operates smoothly, noiselessly and without friction, and is so constructed that t mechanism cannot get bent, broken or out of order.

It is a compact, strong tool, well proportioned and handsomely finished.

(Small illustration shows 2 in. driver. Other lengths like larger cut.)

Specifications

Ratchet operates by means of cam in rear of shifter sleeve, self-locking on pawls. Ratche either to right or left by turning shifter ring. Set at zero for solid screw driver.

Ratchet Pawls—tool steel. Ratchet Springs—spring steel. Ratchet Frame—cold rolled ste

Blade—highest quality screw driver steel, hardened and tempered.

Handle—hardwood, highly polished. Shaped to conform to the hand. Thumb rest at low end

Exposed metal parts polished and nickel plated.

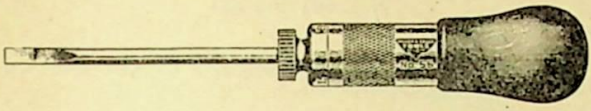
(6 in. and 8 in. drivers are of heavier design throughout.)

Lengths	2 in.	3 in.	4 in.	5 in.	6 in.	8 in.
Weight each	3 oz.	4 oz.	5 oz.	6 oz.	8 oz.	9 oz.
Price each	8.70	.80	.90	1.00	1.10	1.25
Code	*Ganga*	*Ganil*	*Gaper*	*Garry*	*Garth*	*Garum*

Packed six in a box.

RATCHET SCREW DRIVERS

No. 55



This screw driver is particularly adapted for radio, electrical and other light work where small screws are used.

A feature is the knurled collar which is part of the blade and which makes possible easy, rapid work.

The thumb and finger ratchet the blade by means of this collar, while the handle rests securely in the hand with pressure against the screw to prevent its wabbling. Screw is quickly tightened by turning the handle.

Ratchets either to right or left by turning shifter ring. Set at zero for solid screw driver.

Specifications

Blade—Cabinet type. Highest quality special screw driver steel. Hardened and tempered. 3/16 in. diameter.

Ratchet Pawls—tool steel. Ratchet Springs—spring steel.

Ratchet Frame—cold rolled steel.

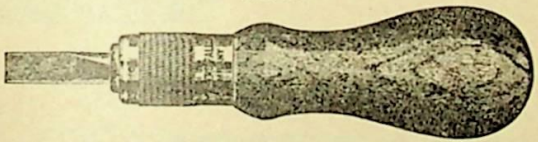
Handle—stained hardwood, polished Inserted ferrule to prevent splitting.

Exposed Metal Parts—polished and nickel plated.

Length of blades	2 in.	3 in.	4 in.	5 in.	6 in.
Length overall	5 in.	6 in.	7 in.	8 in.	9 in.
Weight each	3 oz.	3 oz.	3 oz.	4 oz.	4 oz.
Price each	$.75	.80	.85	.90	.95
Code	*Gatch*	*Gater*	*Gatha*	*Gacuy*	*Gaudy*

Packed six in a box.

No. 59



This new Millers Falls Screw Driver is made especially for electricians, gunsmiths, mechanics, and others whose work demands a screw driver more rugged than the regular type.

The ratchet mechanism is so constructed that it cannot get bent, broken or out of order. It operates smoothly, and without friction.

Specifications

Ratchet operates by means of cam in rear of shifting sleeve, self locking on pawls. Ratchets either to right or left by turning shifter ring. Set at zero for solid screw driver.

Ratchet Pawls—tool steel. Ratchet Springs—spring steel. Ratchet Frame—cold rolled steel.

Blade—highest quality screw driver steel, hardened and tempered.

Handle—hardwood, highly polished. Shaped to conform to the hand. Thumb rest at lower end.

Exposed metal parts polished and nickel plated.

Length of blade, 1⅝ inches. Length overall, 6¼ inches.

Weight each, 6 oz. *Code—Gauby* Price each, $1.00

Packed six in a box.

PLAIN SCREW DRIVERS

Nos. 224 and 336

New Tools

In developing this new line we have tried to make the best Screw Driver that could be m
The prices are high because they are worth more.

The features are these:

Decagon Walnut Handle of excellent finish and unusual grip.

Highly polished blade of high quality steel properly tempered.

No. 224 (Regular)

Width of Point	3/16		¼	5/16		⅜		7/16			
Length of Blade	2½	3	4	5	6	8	10	12	18	24	Inches
Price, each	$.50	.55	.60	.70	.75	.95	1.10	1.25	1.90	2.40	Each

Packed six in a box.

Code—Getty

No. 336 (Cabinet)

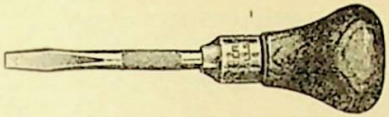
Width of Point	3/16		¼						
Length of Blade	2½	3	4	5	6	8	10	12	Inches
Price, each	$.50	.55	.60	.70	.75	.95	1.10	1.25	Each

Packed six in a box.

Code—Gerry

SCREW DRIVERS

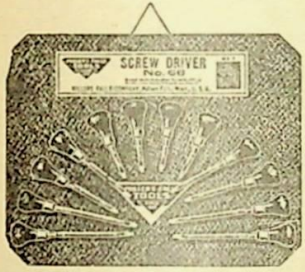
No. 66



A handy little tool with a multitude of uses about the home, office or automobile. Blade is knurled to give firm grip in starting screws. Blade positively will not turn in handle. Cocobolo handle. Polished steel blade.

Length of blade	1½ in.	2½ in.	3½ in.
Weight per dozen	7 oz.	9 oz.	10 oz.
Price per dozen	$2.10	2.20	2.25
Code	*Gemel*	*Genet*	*Genie*

Packed twelve in a box.



SCREW DRIVER SETS

No. 660

No. 66 screw drivers sell readily from this neat display card. Set comprises four each 1½, 2½, and 3½ inch, attractively mounted on heavy cardboard, covered with dark green paper.

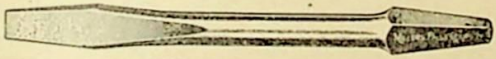
Weight per set, 1 lb. Price per set, $2.55

Code—Geode

Each set wrapped singly in heavy paper.

SCREW DRIVER BITS

Nos. 4-10



A hammer forged bit superior to the ordinary tool of this type. None but high grade steel is used in its manufacture and special attention is given to the hardening and tempering.

The points are carefully formed and accurately fit the slots for which they are intended.

4 in. long overall.

No.	4	5	6	8	10
Width of point inches	4/16	5/16	6/16	8/16	10/16
For screws Nos.	6 to 8	8 to 12	12 to 16	16 to 20	20 to 24
Weight per doz.	9 oz.	12 oz.	1 lb.	1¼ lbs.	1½ lbs.
Price per dozen	$2.80	2.90	3.00	3.15	3.50
Code	*Gerah*	*Gerbe*	*Gesse*	*Getup*	*Ghast*

Packed six in a box.

BRACES

Being manufacturers of braces for more than fifty years, Millers Falls Company is considered the pioneer in this line. It is our constant aim to improve and strengthen this line. Many changes will be noted that have increased their serviceability.

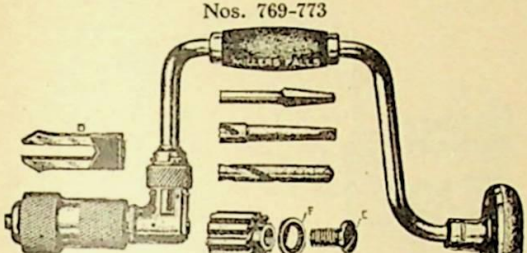
The highest type of bit brace will be found in Nos. 772-1772-872 and 1872 series. The No. 1772 and 1872 series have been added since the issuance of catalog No. 39 and differ from the No. 772 and 872 in the chuck shells only, having a shell with octagon grip.

The greatest care and thought is given to every detail of manufacture. Only the finest grade of selected cocobolo is used on the better grade of braces; the chuck bodies are of solid bar steel; jaws are of high carbon steel; ratchet rings are of steel with machine cut cams; the sweep rods are threaded, soldered and pinned into the crooked socket.

Several items have been discontinued, as it is the desire of this Company to offer only lines which will offer a rapid turnover and yet have a line that is complete to meet every requirement.

RATCHET BRACES

Nos. 769-773



These are our highest quality braces, and are unsurpassed for ease of operation in heavy work. They are ball bearing at every possible point and run practically without friction.

Improved chuck having rectangular opening in the shell, with corners cut away to accommodate extra large bit shanks.

Figures E and F show patent cup washer which cannot work loose.

Specifications

Cocobolo head and handle. Exposed metal parts nickel plated and buffed.

Chuck—Lion ball bearing. Jaws have parallel milled grooves which grip along their entire length. Holds bit shanks, round from ⅛ to ½ inch and No. 1 Morse taper shanks.

Ratchet—boxed. Head—ball bearing. Full steel clad.

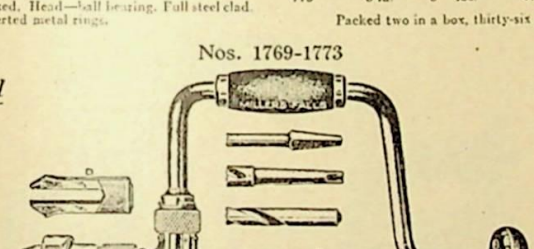
Handle—Inserted metal rings.

No.	Sweep	Weight	Price	Code
769	16 in.	4½ lbs.	$6.80	*Aback*
770	14 in.	4 lbs.	6.45	*Abacu*
771	12 in.	3½ lbs.	6.30	*Abaft*
772	10 in.	3⅜ lbs.	6.05	*Aband*
773	8 in.	3 lbs.	6.00	*Abask*

Packed two in a box, thirty-six in a case.

Nos. 1769-1773

New Tool



This series is the same as Nos. 769-773 except for the chuck shell which is the octagonal pattern.

Specifications

Cocobolo head and handle. Exposed metal parts nickel plated and buffed.

Chuck—Lion ball bearing. Jaws have parallel milled grooves which grip along their entire length. Holds bit shanks, round from ⅛ to ½ inch and No. 1 Morse taper shanks.

Ratchet—boxed. Head—ball bearing. Full steel clad.

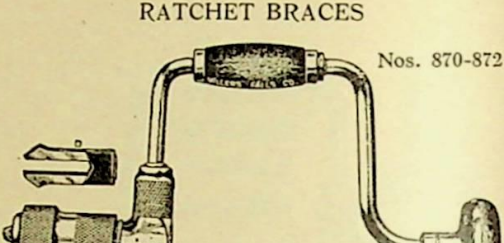
Handle—Inserted metal rings.

No.	Sweep	Weight	Price	Code
1769	16 in.	4½ lbs	$6.80	*Abart*
1770	14 in.	4 lbs.	6.45	*Abate*
1771	12 in.	3½ lbs.	6.30	*Abato*
1772	10 in.	3⅜ lbs.	6.05	*Abole*
1773	8 in.	3 lbs.	6.00	*Abuma*

Packed two in a box, thirty-six in a case.

RATCHET BRACES

Nos. 870-872



This series is identical with Nos. 769-773 except that the ratchet is of the concealed type and the sweep handle is ball bearing.

Specifications

Cocobolo head and handle. Exposed metal parts nickel plated and buffed.

Chuck—Lion ball bearing. Jaws have parallel milled grooves which grip along their entire length. Holds bit shanks, round from ⅛ to ½ inch and No. 1 Morse taper shanks.

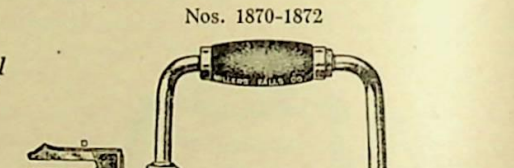
Ratchet—concealed. Head—ball bearing. Full steel clad. Handle—Inserted metal rings.

No.	Sweep	Weight	Price	Code
870	14 in.	4 lbs.	$7.60	Ajax
871	12 in.	3½ lbs.	7.45	Ajaxo
872	10 in.	3⅜ lbs.	7.15	Ajaxu

Packed two in a box, thirty-six in a case.

Nos. 1870-1872

New Tool



These braces are the same as Nos. 870-872 except that the chuck shell is of the octagonal pattern

Specifications

Cocobolo head and handle. Exposed metal parts nickel plated and buffed.

Chuck—Lion ball bearing. Jaws have parallel milled grooves which grip along their entire length. Holds bit shanks, round from ⅛ to ½ inch and No. 1 Morse taper shanks.

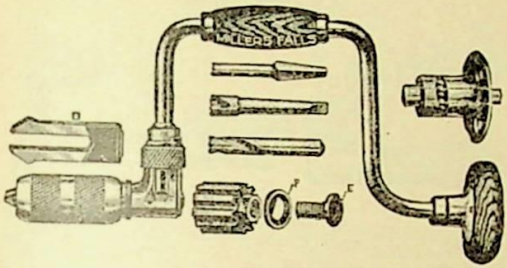
Ratchet—concealed. Head—ball bearing. Full steel clad. Handle—Inserted metal rings.

No.	Sweep	Weight	Price	Code
1870	14 in.	4 lbs.	$7.60	Ajaxp
1871	12 in.	3½ lbs.	7.45	Ajaxq
1872	10 in.	3⅜ lbs.	7.15	Ajaxr

Packed two in a box, thirty-six in a case.

RATCHET BRACES (HOLDALL)

Nos. 730-734



This series is the most popular of our better grade braces. Since first offered it has been popularly known as the "Holdall" brace—this name having reference to the chuck which holds bit shanks, round from ⅛ to ½ inch and No. 1 Morse taper shanks.

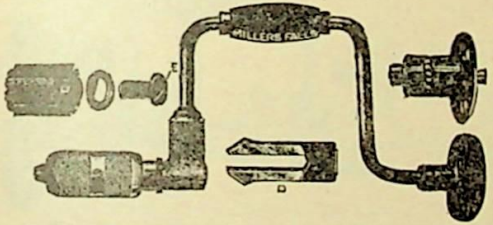
Specifications

Cocobolo head and handle. Exposed metal parts nickel plated and buffed.
Chuck—Master. Jaws have parallel milled grooves which grip along their entire length.
Ratchet—boxed. Head—ball bearing. Steel quill. Handle—inserted metal rings.

No.	Sweep	Weight	Price	Code
730	14 in.	3½ lbs.	$5.55	*Abbey*
731	12 in.	3¼ lbs.	5.40	*Abbot*
732	10 in.	3⅛ lbs.	5.15	*Abdic*
733	8 in.	2¾ lbs.	5.10	*Abdok*
734	6 in.	2¾ lbs.	5.10	*Abeam*

Packed two in a box, thirty-six in a case.

Nos. 8130-8133



Except for the ratchet which is of the concealed type, these braces are identical with No. 730 series

Specifications

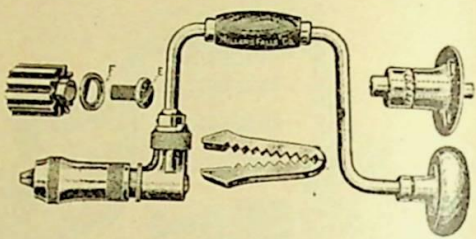
Cocobolo head and handle. Exposed metal parts nickel plated and buffed.
Chuck—Master. Jaws have parallel milled grooves which grip along their entire length.
Ratchet—concealed. Head—ball bearing. Steel quill. Handle—inserted metal rings.

No.	Sweep	Weight	Price	Code
8130	14 in.	3½ lbs.	$6.20	*Abode*
8131	12 in.	3¼ lbs.	6.10	*Abolt*
8132	10 in.	3⅛ lbs.	5.80	*Ablot*
8133	8 in.	2¾ lbs.	5.75	*Abory*

Packed two in a box, thirty-six in a case.

RATCHET BRACES

Nos. 30-34



There is no brace better known to carpenters than No. 32 of this series. Its sale exceeds all of any of our higher priced braces.

The braces of this series will fulfill every boring requirement where bit shanks only are used.

Specifications

Cocobolo head and handle. Exposed metal parts nickel plated and buffed.

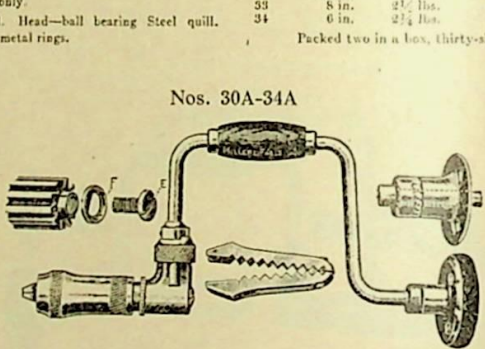
Chuck—Barber with forged steel alligator jaws. Holds bit shanks only.

Ratchet—boxed. Head—ball bearing Steel quill. Handle—inserted metal rings.

No.	Sweep	Weight	Price	Code
30	14 in.	3½ lbs.	85.10	Abaxe
31	12 in.	3 lbs.	4.95	Abaxo
32	10 in.	2⅞ lbs.	4.70	Abaxi
33	8 in.	2½ lbs.	4.65	Abaxa
34	6 in.	2¼ lbs.	4.65	Abaxu

Packed two in a box, thirty-six in a case.

Nos. 30A-34A



This series differs from Nos. 30-34 series only in the head, which is full steel clad.

Specifications

Cocobolo head and handle. Exposed metal parts nickel plated and buffed.

Chuck—Barber with forged steel alligator jaws. Holds bit shanks only.

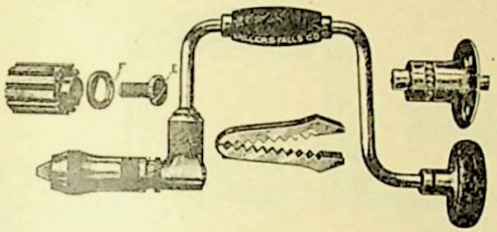
Ratchet—boxed. Head—full steel clad, ball bearing. Steel quill. Handle—inserted metal rings.

No.	Sweep	Weight	Price	Code
30A	14 in.	3½ lbs.	85.35	Abaxy
31A	12 in.	3 lbs.	5.20	Abaxm
32A	10 in.	2⅞ lbs.	4.95	Abaxr
33A	8 in.	2⅝ lbs.	4.90	Abaxk
34A	6 in.	2⅜ lbs.	4.90	Abaxd

Packed two in a box, thirty-six in a case.

RATCHET BRACES

Nos. 130-133



For those who prefer the concealed ratchet we offer this series.
Except for this detail they are the same as No. 30 series.

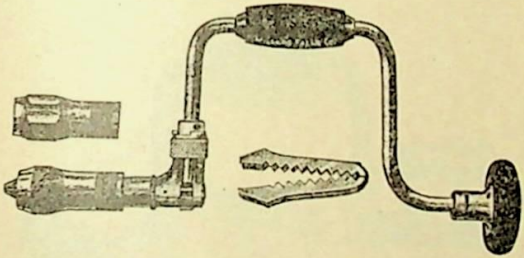
Specifications

Cocobolo head and handle. Exposed metal parts nickel plated and buffed.
Chuck—Barber with forged steel alligator jaws. Holds bit shanks only.
Ratchet—concealed. Head—ball bearing. Steel quill. Handle—inserted metal rings.

No.	Sweep	Weight	Price	*Code*
130	14 in.	3¾ lbs.	$5.45	*Abyss*
131	12 in.	3 lbs.	5.25	*Acads*
132	10 in.	2⅞ lbs.	5.00	*Acede*
133	8 in.	2⅝ lbs.	5.00	*Accel*

Packed two in a box—thirty-six in a case.

Nos. 321-323



Every feature essential to a good brace is found in these braces.
They are lower priced than No. 32 series because of native hardwood handles and head and less expensive ratchet construction.

Specifications

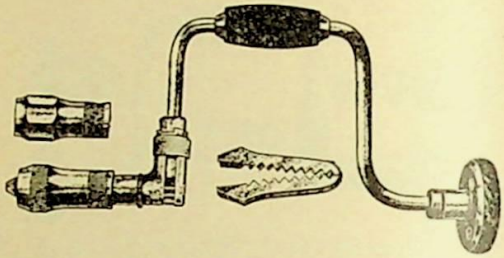
Stained hardwood head and handles. Exposed metal parts polished and nickel plated.
Chuck—Barber with forged alligator jaws. Ratchet semi-boxed.
Handle—inserted metal rings. Head—ball bearing.

No.	Sweep	Weight	Price	*Code*
321	12 in.	2⅞ lbs.	$4.05	*Achei*
322	10 in.	2¾ lbs.	3.90	*Acoly*
323	8 in.	2⅝ lbs.	3.85	*Acorn*

Packed six in a box, thirty-six in a case.
Furnished with octagonal chuck shell, each extra $0.05.

RATCHET BRACES

Nos. 1321-1324



These braces are the same as Nos. 321-323, except have ebonized heads and handles, with heads full steel clad, and friction washer to minimize friction.

Specifications

Ebonized hardwood head and handle. Exposed metal parts polished and nickel plated.

Chuck—Barber with forged alligator jaws. Ratchet—semi-boxed.

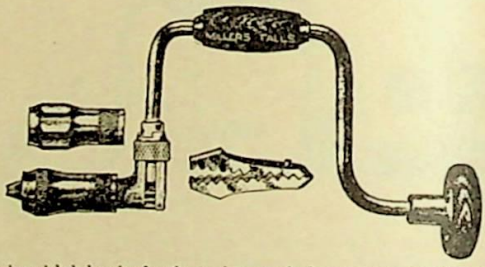
Handle—inserted metal rings. Head—ball bearing, full steel clad.

No.	Sweep	Weight	Price	Code
1321	12 in.	3 lbs.	$3.85	*Acrim*
1322	10 in.	2¾ lbs.	3.65	*Acrub*
1323	8 in.	2½ lbs.	3.60	*Actin*
1324	6 in.	2¼ lbs.	3.60	*Actor*

Packed six in a box, thirty-six in a case.

Furnished with octagonal chucks, each extra $0.05.

Nos. 421-423



An inexpensive nickeled series for those whose work does not require the refinements of the higher priced braces.

Specifications

Stained hardwood head and handle. Exposed metal parts polished and nickel plated.

Chuck—Barber, with improved malleable alligator jaws. Ratchet—semi-boxed.

Handle—inserted metal rings.

Head—screwed on and securely held by two screws. Plain bearing.

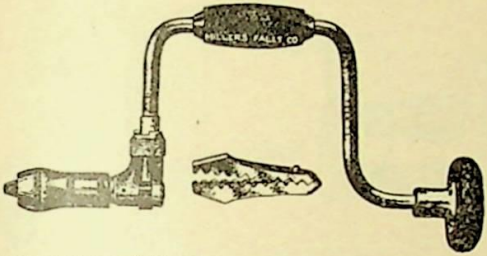
No.	Sweep	Weight	Price	Code
421	12 in.	2¾ lbs.	$3.05	*Adjec*
422	10 in.	2⅝ lbs.	2.95	*Adjew*
423	8 in.	2⅜ lbs.	2.90	*Adjaw*

Packed six in a box, thirty-six in a case.

Furnished with octagonal chucks, each extra $0.05.

RATCHET BRACES

Nos. 1661-1663



This is our most popular ratchet brace.

Within the past year several improvements have been made in this series—the most important being a ratchet socket of new design, improved ratchet gear and pawls—and a better finish on the heads and shells.

These features combined with an unusually low price for a brace of this quality are responsible for its enjoying the largest sale of any brace we make.

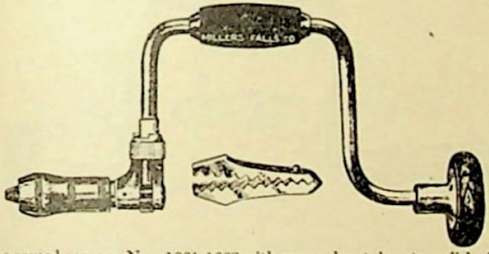
Specifications

Stained hardwood head and handle. Exposed parts polished and nickel plated.
Chuck—Barber with improved malleable alligator jaws.
Ratchet—semi-boxed. Handle—inserted metal ring.
Head—screwed on and securely held by two wood screws. Plain bearing.

No.	Sweep	Weight	Price	Code
1661	12 in.	2¾ lbs.	$2.15	*Adrer*
1662	10 in.	2¼ lbs.	2.10	*Adroc*
1663	8 in.	2 lbs.	2.05	*Arcli*

Packed six in a box, thirty-six in a case.

Nos. 161-163



These are the same braces as Nos. 1661-1663 with exposed metal parts, polished instead of nickel plated.

Specifications

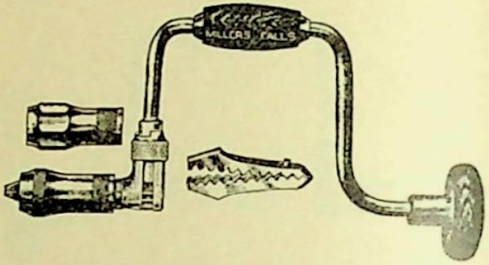
Stained hardwood head and handle. Exposed parts polished.
Chuck—Barber with improved malleable alligator jaws.
Ratchet—semi-boxed. Handle—inserted metal rings.
Head—screwed on and securely held by two wood screws. Plain bearing.

No.	Sweep	Weight	Price	Code
161	12 in.	2¾ lbs.	$2.00	*Afara*
162	10 in.	2¼ lbs.	1.95	*Affab*
163	8 in.	2 lbs.	1.90	*Affee*

Packed six in a box, thirty-six in a case.

RATCHET BRACES

Nos. 631-633



These braces are the same as Nos. 421-423 (page 38) except that the exposed metal parts are polished instead of nickel plated.

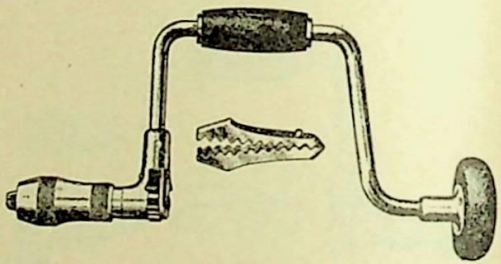
Specifications

Stained hardwood head and handle. Exposed metal parts polished.
Chuck—Barber, with improved malleable alligator jaws. Ratchet—semi-boxed.
Handle—inserted metal rings.
Head—screwed on and securely held by two screws.
Plain bearing.

No.	Sweep	Weight	Price	Code
631	12 in.	2¾ lbs.	$2.70	*Adrem*
632	10 in.	2½ lbs.	2.60	*Adulo*
633	8 in.	2¼ lbs.	2.55	*Adrew*

Packed six in a box, thirty-six in a case.

Nos. 261-263



These are our lowest priced ratchet braces. They differ from our other inexpensive braces in finish and in the ratchet construction.

Specifications

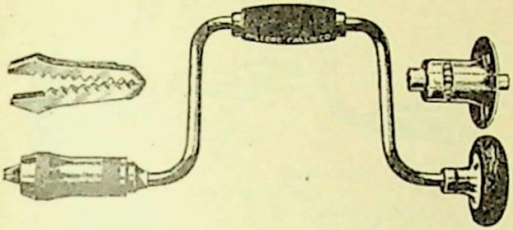
Stained hardwood head and handle. Chuck—Barber. Cast alligator jaws. Ratchet—"pick out" pawl type. Head—screwed on and held by two wood screws. Plain bearing.

No.	Sweep	Weight	Price	Code
261	12 in.	2¼ lbs.	$1.90	*Afli*
262	10 in.	2 lbs.	1.85	*Afur*
263	8 in.	1⅞ lbs.	1.80	*Afray*

Packed six in a box, thirty-six in a case.

PLAIN OR SLEEVE BRACES

Nos. 12-14



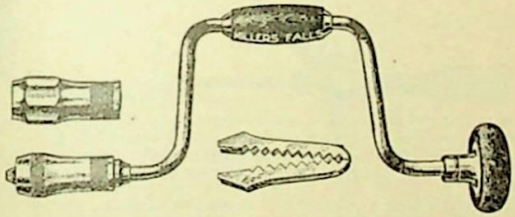
For certain types of work the ratchet on a brace is superfluous. Under such circumstances the purchase of a plain brace is an object because it is lower priced than a ratchet brace of equal finish and build.

Nos. 12-14 are our highest quality plain braces.

Specifications

	No.	Sweep	Weight	Price	*Code*
Cocobolo head and handle. Exposed metal parts polished and nickel plated.	12	10 in.	2¾ lbs.	$3.55	*Accom*
	13	8 in.	2 lbs.	3.50	*Acord*
Chuck—Barber. Forged alligator jaws.	14	6 in.	1¾ lbs.	3.50	*Acort*
Head—ball bearing. Handle—inserted metal rings.			Packed six in a box, thirty-six in a case.		

Nos. 221-223



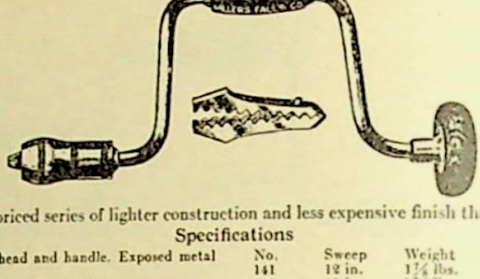
This series is built to meet a demand for a medium price brace of the sleeve type.

Specifications

	No.	Sweep	Weight	Price	*Code*
Stained hardwood head and handle. Exposed metal parts polished and nickel plated.	221	12 in.	2¾ lbs.	$2.45	*Adame*
Chuck—Barber. Forged alligator jaws.	222	10 in.	2¼ lbs.	2.25	*Adder*
Head—friction washer to minimize friction. Steel quill.	223	8 in.	1¾ lbs.	2.20	*Adict*
Handle—inserted metal rings.			Packed six in a box, thirty-six in a case.		

PLAIN OR SLEEVE BRACES

Nos. 141-143



This is a low priced series of lighter construction and less expensive finish than Nos. 12-14.

Specifications

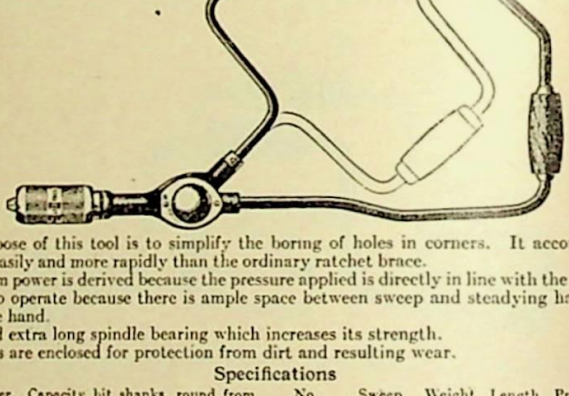
Stained hardwood head and handle. Exposed metal parts polished.
Chuck—Barber. Cast alligator jaws.
Head—plain bearing. Head screwed on and securely held by two wood screws.

No.	Sweep	Weight	Price	Code
141	12 in.	1¾ lbs.	$1.10	*Afida*
142	10 in.	1¾ lbs.	1.05	*Afih*
143	8 in.	1⅝ lbs.	1.05	*Afino*

Packed six in a box, thirty-six in a case.

CORNER BRACES

Nos. 502-503



The purpose of this tool is to simplify the boring of holes in corners. It accomplishes such boring more easily and more rapidly than the ordinary ratchet brace.

Maximum power is derived because the pressure applied is directly in line with the chuck.

Is easy to operate because there is ample space between sweep and steadying handle to allow free use of the hand.

Improved extra long spindle bearing which increases its strength.

The gears are enclosed for protection from dirt and resulting wear.

Specifications

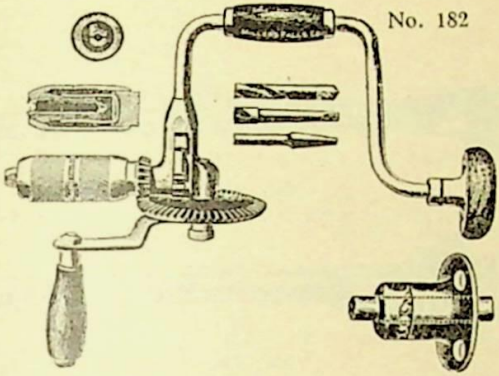
Chuck—Master. Capacity bit shanks, round from ¼ to ½ inch, and No. 1 Morse taper shanks.
Gears—case hardened. Enclosed for protection, but easily accessible for oiling.
Ball thrust bearing at base of chuck
Head—ball bearing.
Handles—free acting. Inserted metal rings, both of stained hardwood.
Exposed metal parts, except frame casting, nickel plated. Frame casting japanned.

No.	Sweep	Weight	Length	Price	Code
502	10 in.	4 lbs.	17 in.	$7 75	*Agupe*
503	8 in.	3½ lbs.	17 in.	7 40	*Agent*

Packed two in a box.

RATCHET DRILL BRACE

No. 182



This tool is, as the name implies, a combination bit brace and breast drill. With it one is equipped to do practically every kind of boring.

It takes but a moment to convert the brace into a breast drill for the greater power necessary to drill metal, cement or any hard material.

The reverse operation is as easily and quickly done.

The tool is invaluable to anyone whose work is not confined to one kind of drilling.

Specifications

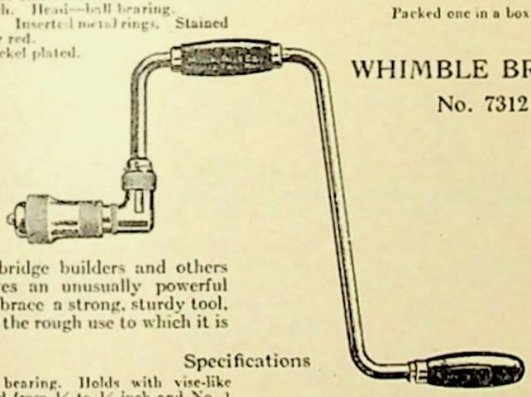
Chuck—Master. Capacity—bit shanks, round from 1/4 to 1/2 inch, and No. 1 Morse taper shanks.
Ratchet—open. Gear Ratio—3 to 1
Brace Sweep—10 inch. Head—ball bearing.
Handle—free acting. Inserted metal rings. Stained hardwood. Large gear red.
Other metal parts nickel plated.

Weight	Price	Code
4 lbs.	88 35	*Aftma*

Packed one in a box

WHIMBLE BRACE

No. 7312



Ship builders, bridge builders and others whose work requires an unusually powerful sweep will find this brace a strong, sturdy tool, capable of standing the rough use to which it is necessarily put.

Specifications

Chuck—Lion, ball bearing. Holds with vise-like grip, bit shanks, round from 1/4 to 1/2 inch and No. 1 Morse taper shanks.
Sweep rod—9/16 inch steel stock. Ratchet—boxed.
Distance from center handle to main axis 6 inches.
Upper handle offset 6 inches from main axis.
Handles—free acting. Stained hardwood.
Exposed metal parts polished and nickel plated

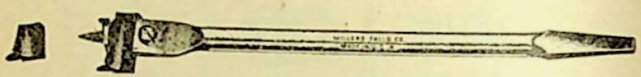
Weight	Price	Code
3¾ lbs.	85 65	*Astut*

Packed two in a box.

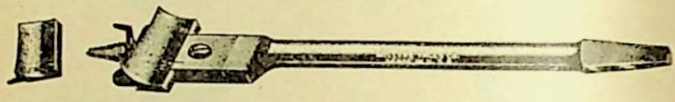
EXPANSIVE BITS

(Clark Pattern)

New Tool



No. 47



No. 48

Made From Highest Grade Special Bit Steel

No. 47 small size with two cutters, cutting from ½ to 1½ in.
No. 48 large size with two cutters, cutting from ⅞ to 3 in.

	No. 47	No. 48
Weight each	6 oz.	8 oz.
Price each	$1.50	$2.20
Code	*Bardo*	*Bollo*

Packed one in paper box; Six in a carton.

Extra Cutters

No. 1, for No. 47, cutting ½ to ¾ inches	Per doz. $3.00
No. 2, for No. 47, cutting ⅞ to 1½ inches	Per doz. 3.75
No. 3, for No. 48, cutting ⅞ to 1¾ inches	Per doz. 5.25
No. 4, for No. 48, cutting 1¾ to 3 inches	Per doz. 6.00

AUGER BITS

No. 531

This auger bit with single spur and single cutting edge cuts with less friction than any other type of auger bit, and is unsurpassed for all around boring.

The side opposite the cutting edge is ground down for clearance. This increases the efficiency of the bit in wet, green, spongy, or knotty woods and in boring with the grain.

The deep, single twist allows maximum clearance for the chips; there is no possibility of its clogging.

The bits cut a clean, smooth hole, rapidly and accurately; draws in with a minimum of pressure; is easily re-sharpened and bores straight through the wood with but little splintering.

Highly polished overall.

Prices per dozen. Sizes in sixteenths of an inch.

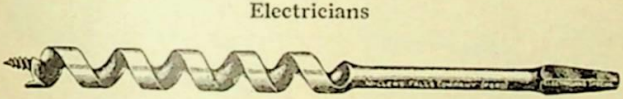
Size	3	4	5	6	7	8	9
Price	$6.00	5.00	5.00	5.00	5.00	5.00	6.00
Size	10	11	12	13	14	15	16
Price	$6.00	7.00	7.00	8.25	8.25	9.50	9.50
Size	17	18	19	20	21	22	24
Price	$12.00	12.00	14.00	14.00	16.00	16.00	18.00

Code—Babut

Packed one-half dozen in a box.

No. 533

Electricians



Electricians and locksmiths in particular will appreciate this bit.

It requires but six turns to go through one inch of timber—just double the speed of No. 531, and nearly three times as fast as the fine double threaded double lip bits.

Recommended for soft woods only. Highly polished overall.

Made in three sizes only.

Prices per dozen. Sizes in sixteenths of an inch.

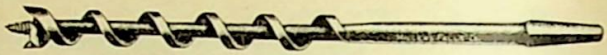
Sizes	10	11	12
Price	$6.00	7.00	7.00

Code—Bando

Packed one-half dozen in a box.

AUGER BITS

No. 542



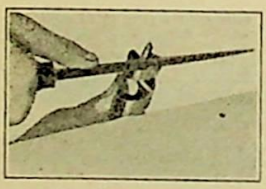
This is a popular type of Bit, featured by a solid stem extending through the center from screw-point to the shank. This solid center makes a rigid, strong tool, especially at the point where the shank joins the twist. Has two extension lips and spurs, and two cutting edges. The screw is properly pitched and spurs are of correct proportion for smooth, free cutting. Highly polished overall.

	Prices per dozen.			Sizes in sixteenths of an inch.				
Size	3	4	5	6	7	8	9	
Price	$4.50	4.00	4.00	4.00	4.50	5.00	5.50	6
Size	11	12	13	14	15	16	17	
Price	$7.00	7.00	8.00	8.00	9.00	9.00	10.50	10
Size	19	20	21	22	24			
Price	$12.00	12.00	13.50	13.50	15.00			

Code—Basco

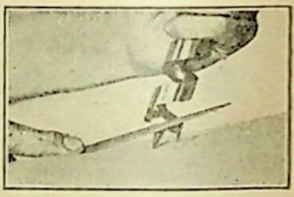
Packed one-half dozen in a box.

THE CORRECT WAY TO FILE A BIT



The Spur

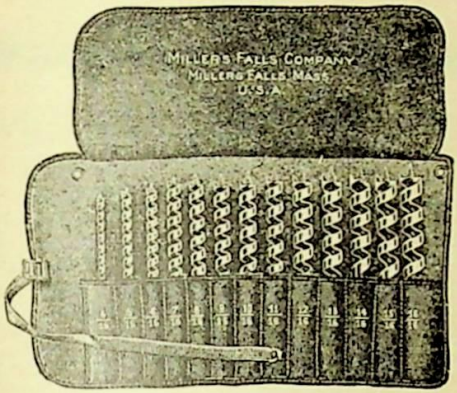
Use a fairly smooth mill file. Rest the first twist of the Bit in corner of the bench, spur down, at an angle of about 45° to the bench. Rock the Bit slightly in order to sharpen both front and back of the spur, keeping file always parallel to the bench. Remove as little metal as possible. Never file the outside of spur, as this destroys the clearance and size, and causes Bit to bind.



The Cutting Edge

Use same kind of file as on the spur. Hold Bit rigid and in position shown in the illustration. Keep slope of cutting edge as near the original bevel as possible, for if made too steep the Bit will cut hard. Never file the top of Bit as this destroys clearance and causes binding.

AUGER BIT SETS



Canvas Rolls

A set of auger bits in a roll is particularly handy for use in portable tool kits as it is more compact than a similar set in a box.

The Millers Falls roll is of heavy, long grain fabricoid—a new material which is absolutely waterproof. Edges are bound with heavy tape, and when closed is securely fastened with a canvas strap. Each bit has an individual pocket, with its respective size plainly stamped across the top.

How to Order

In ordering prefix figure 2 to type of bit wanted and add the number of quarters. For example 2531-32½ quarters signifies a set of 32½ quarters auger bits No. 531. 2542-14 quarters a set of 14 quarters auger bits No. 542.

Quarters	Price	Assortment by sixteenths of an inch.
32½	$8.50	4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16 one each.
25½	7.00	4, 5, 6, 7, 8, 9, 10, 11, 12, 14, and 16 one each.
24	6.90	4, 5, 7, 9, 11 and 12 one each and 6, 8 and 10 two each.
22½	6.80	5, 7, 9, 10, 11, and 12 one each and 4, 6, and 8 two each.
21	6.40	5, 6, 7, 9, 10, 11, and 12 one each and 4 and 8 two each.
20½	5.90	4, 5, 6, 7, 8, 10, 12, 14, and 16 one each.
18¾	5.50	4, 5, 6, 8, 10, 12, 14, and 16 one each.
18	5.50	4, 5, 6, 7, 8, 9, 10, 11, and 12 one each.
17½	4.75	4, 6, 8, 10, 12, 14, and 16 one each.
15¼	4.50	4, 5, 6, 8, 10, 12, and 16 one each.
14	4.10	4, 6, 8, 10, 12, and 16 one each.
11¼	3.75	4, 5, 6, 8, 10, and 12 one each.

Code—No. 2531, Bedim *No. 2542 Basfy*

Canvas rolls only (without bits) for 32½ quarters (13 bits) each, $1.00.

SHIP AUGER BITS

New

No. 935

Recommended particularly for the hard tropical woods and is especially tempered for s woods. Screw-point has deep thread with moderately coarse feed. A splendid bit for boring or end grain domestic hard woods. Is easily resharpened.

	Prices per dozen.			Sizes in sixteenths of an inch.				
Size	3	4	5	6	7	8	9	
Price	$4.50	4.00	4.00	4.00	4.50	5.00	5.50	6.
Size	11	12	13	14	15	16	18	
Price	$7.00	7.00	8.00	8.00	9.00	9.00	10.50	12.
Size	22	24						
Price	$13.50	15.00						

Code—Baust

Packed one-half dozen in a box.

SHIP AUGER BIT

No. 931

A sturdy bit built for rough usage, especially recommended for boring hard, knotty, and e grain woods. Has coarse, deep cut, single threaded screw, and sharp, well-proportioned side Will stand many resharpenings.

	Prices per dozen.		Sizes in sixteenths of an inch.				
Size	4	5	6	7	8	9	1
Price	$6.00	6.00	6.00	6.00	6.00	7.50	7.
Size	11	12	13	14	15	16	
Price	$9.00	9.00	10.50	10.50	12.00	12.00	

Code—Basal

Packed one-half dozen in a box.

SINGLE LIP CAR BITS (FORD)

No. 551

12" Twist 18" Overall

This bit has all the features of No. 531 auger bit as it is identical with it except for the length of twist and length overall.

Positively will not clog even when bored to its extreme depth. Highly polished overall.

Prices per dozen. Sizes in sixteenths of an inch.

Size	4	5	6	7	8	9	10	11
Price	$11.25	11.25	11.25	11.25	11.25	12.50	13.75	15.00
Size	12	13	14	15	16	18	20	
Price	$16.25	17.50	19.00	20.50	22.00	26.00	30.00	

Code—Baoba

Packed one-half dozen in a box up to and including 16/16 in.

Packed one-fourth of a dozen in a box above this size.

SOLID CENTER CAR BIT

No. 552

12" Twist 18" Overall

This bit is identical with No. 542 auger bit except for the length of twist, and length overall. Highly polished overall.

Prices per dozen. Sizes in sixteenths of an inch.

Size	4	5	6	7	8	9	10
Price	$9.00	9.00	9.00	10.00	11.25	12.50	13.75
Size	11	12	13	14	15	16	18
Price	$15.00	16.25	17.50	19.00	20.50	22.00	26.00
Size	20	22	24				
Price	$30.00	34.00	38.00				

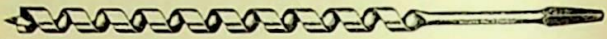
Code—Barba

Packed one-half dozen in a box up to and including 16/16 in.

Packed one-fourth of a dozen in a box above this size.

SHIP AUGER CAR BIT (FORD)

No. 922



12" Twist 18" Overall

This type of bit without spur is made especially for boring in rough timber, and in woods with a firm grain. Cuts easily and expels chips freely to the full depth of the twist.

16/16 in. and smaller have full polished twist and round. Larger sizes have black hollows.

	Prices per dozen.		Sizes in sixteenths of an inch.				
Size	4	5	6	7	8	9	10
Price	$11.00	11 00	11.00	11.00	11.00	11.00	11.00
Size	11	12	13	14	15	16	17
Price	12.00	12 00	13.00	13.00	14.50	14.50	16.00
Size	18	20	22	24			
Price	$16.00	18 00	20.00	23.00			

Code—Baret

Packed six in a box up to and including 16/16 in.

Packed three in a box above this size.

SHIP AUGER CAR BIT (FORD)

No. 921

8" Twist 12" Overall

Differs from No. 922 only in length of twist and length overall.

It is made especially for certain car shop and other work where the 12 in. twist is unnecessarily long.

	Prices per dozen.		Sizes in sixteenths of an inch.			
Size	6	7	8	9	10	11
Price	$10.00	10.00	10.00	10.00	10.00	11.00
Size	12	13	14	15	16	
Price	$11 00	12.00	12.00	13.50	13.50	

Code—Barqu

Packed six in a box.

SHIP AUGERS (FORD)

No. 912

With Screw

Ship Augers are generally used in a wooden auger handle or by means of a metal crank or handle welded to the taper shank.

The twists vary in length according to the size of the auger. Up to and including 16/16 in. have full polished twists and rounds. Larger sizes have black hollows:

4–5/16	8″ twist 13″ overall
6–7–8/16	10″ twist 14″ overall
9/16–16/16	12″ twist 18″ overall
17/16	15″ twist 20″ overall

Prices per dozen. Sizes in sixteenths of an inch.

Size	4–10	11	12	13	14	15	16	17
Price	$11.00	12.00	12.00	13.00	13.00	14.50	14.50	16.00
Size	18	19	20	21	22	23	24	25
Price	$16.00	18.00	18.00	20.00	20.00	23.00	23.00	27.00
Size	26	27	28	29	30	31	32	34
Price	$27.00	32.00	32.00	38.00	38.00	45.00	45.00	57.00
Size	36	38	40	42	44	46	48	
Price	$72.00	86.00	101.00	115.00	130.00	144.00	158.00	

Code—Barme

No. 812

Without Screw

Identical with No. 912 except has no screw point. Sometimes called "barefoot" augers. Recommended where particularly straight boring is essential, because it will not drift off with the grain of the wood.

Prices per dozen. Sizes in sixteenths of an inch.

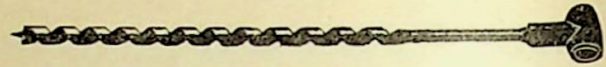
Size	4	5	6	7	8	9	10	11
Price	$13.20	13.20	13.20	13.20	13.20	13.20	13.20	14.40
Size	12	13	14	15	16	17	18	19
Price	$14.40	15.60	15.60	17.40	17.40	19.20	19.20	21.60
Size	20	21	22	23	24	25	26	27
Price	$21.60	24.00	24.00	27.60	27.60	32.40	32.40	38.40
Size	28	29	30	31	32	34	36	38
Price	$38.40	45.60	45.60	54.00	54.00	68.40	86.40	103.20
Size	40	42	44	46	48			
Price	$121.20	138.00	156.00	172.80	189.60			

Code—Baron

Packed one-half dozen in box up to and including 16/16 in.
Packed one-fourth of a dozen in box from 17/16 to 30/16 in. inclusive.
Wrapped singly in heavy paper above this size.

RING SHIP AUGERS (FORD)

No. 961



With Screw

This type of auger is used chiefly in dock and bridge construction. Operated with a wooden or iron handle. Rings are cast and firmly riveted to the shank.

Length of twist is the same as No. 912 ship augers. Overall length 18 to 24 inches in proportion to size of auger.

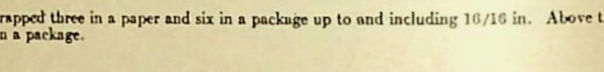
Prices per dozen. Sizes in sixteenths of an inch.

Size	10 (and under)	11 and 12	13 and 14	15 and 16	17 and 18
Price	$15.10	16.20	17.30	18.95	20.60
Size	19 and 20	21 and 22	23 and 24	25 and 26	27 and 28
Price	$22.80	25.00	28.80	32.70	38.20
Size	29 and 30	31 and 32	34	36	38
Price	$44.80	52.50	62.70	79.20	94.60
Size	40	42	44	46	48
Price	$111.10	126.50	143.00	158.40	173.80

Code—Basil

Wrapped three in a paper and six in a package up to and including 10/16 in. Above this size, three in a package.

No. 861



Without Screw

Identical with No. 961 except has no screw.

Prices per dozen. Sizes in sixteenths of an inch.

Size	10 (and under)	11 and 12	13 and 14	15 and 16	17 and 18
Price	$18.10	19.40	20.75	22.75	24.70
Size	19 and 20	21 and 22	23 and 24	25 and 26	27 and 28
Price	$27.35	30.00	33.95	39.25	45.85
Size	29 and 30	31 and 32	34	36	38
Price	$53.75	63.00	75.25	95.05	113.50
Size	40	42	44	46	48
Price	$133.30	151.80	171.60	190.10	208.55

Code—Basqu

Wrapped six in a package up to and including 16/16 in. Above this size, three in a package.

POWER MACHINE BITS

No. 971

Ship Auger Head—With Screw

Furnished in 8 or 12 inch twist only and sizes shown below. Unless otherwise specified shanks are furnished ½ x 2½.

8″ Twist

Size	8/16 (and under)	9/16	10/16	11/16	12/16
Price	$12.96	14.40	15.84	17.28	18.72
Size	13/16	14/16	15/16	16/16	
Price	$20.16	21.60	23.04	24.48	

12″ Twist

Size	8/16 (and under)	9/16	10/16	11/16	12/16
Price	$17.28	19.20	21.12	23.04	24.96
Size	$13/16	14/16	15/16	16/16	18/16
Price	26.88	28.80	30.72	32.64	36.48
Size	20/16	22/16	24/16		
Price	$40.32	44.16	48.00		

BORING MACHINE AUGERS

No. 231

8″ Twist 12″ Overall

These augers are for use in hand boring machines No. 145. Cuts smoothly, rapidly and will not bind or choke. Full polished overall. Furnished in following sizes only.

	Prices per dozen.			Sizes in sixteenths of an inch.			
Size	6	7	8	9	10	11	12	13
Price	$10.00	10.00	10.00	10.00	10.00	11.00	11.00	13.00
Size	14	16	18	20	22	24	28	32
Price	$13.00	15.00	17.00	19.00	21.00	24.00	28.00	32.00

Code—Bayou

All sizes wrapped three in a package.

Augers in Sets

	18	28	41 quarters
Price, per set	$6.00	7.50	13.50
Sizes	1, 1½, 2 in.	1, 1¼, 1½, 2 in.	½, ⅝, ¾, ⅞, 1, 1¼, 1½, 1¾, 2 in.
Code	*Derni*	*Derik*	*Derri*

MILLERS FALLS TOOLS SINCE 1868

HAND AND BREAST DRILLS

Marked improvements have been made in Millers Falls hand and breast d the past few months. To this line has been added No. 94 Hand Drill and No. Breast Drill.

Chucks—The inner construction of the Millers Falls chuck is of partic note. The jaws are opened and closed by springs situated in the base of the ch in such a position that it is impossible to get the drill in back of them. They ca be jammed or knocked out.

This chuck is used on all breast drills and on all hand drills with the excep of Nos. 4 and 4D.

The design of the chuck shells gives a more comfortable hand grip in tighte

Gears and Pinions—The gears are made from close grained grey iron. T pinions are steel. Both have cut teeth. This insures smooth running and l wear.

Frames—Malleable iron and steel accurately machined. The former heavily enameled a glossy black and the latter polished and nickeled.

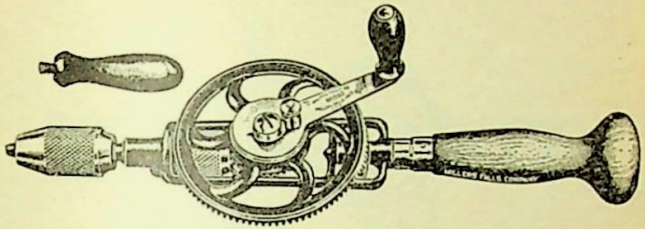
Handles—Handles are made from the finest tropical and native hard wo and are highly polished. They are turned in our own woodworking shop and designed for appearance as well as for strength.

Finish—All our hand and breast drills are now made with an improved fi The large gears are enameled a rich red by a new process which imparts a vel like smoothness. On each breast drill gear is placed a decalcomania showing name and trade mark. The hand drill handle bears our trade mark in colors means of a transfer sticker.

Millers Falls drills now combine quality and appearance as never bef There is a size and type for every drilling purpose and to suit every indivi fancy.

HAND DRILL (RATCHET)

No. 1980



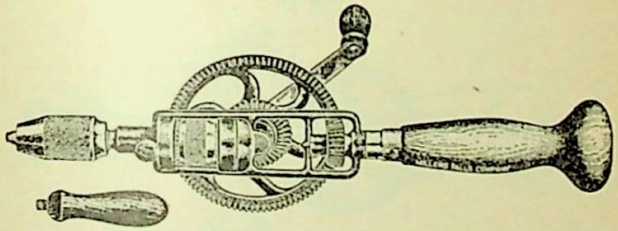
Because of its size and chuck capacity this drill frequently serves every drilling purpose. The mushroom shaped handle comfortably fits the hand and rests easily against the body. The ratchet is rapid, easily operated, and permits working in places inaccessible with the ordinary hand drill.

Speed is instantly changed by rotating knurled sleeve on spindle. Both speed and ratchet can be shifted without removing drill from the work.

Specifications

Ratchet—left or right operated by cap on crank handle.
Two speeds—gear ratios 1½ to 1 and 4 to 1.
Chuck—three jaw; improved protected springs; capacity 0-⅜ in.; round shank drills. Cut gears.
Pinions—steel, cut teeth, enclosed for protection. Idler gear to counteract outward thrust of large gear
Ball thrust bearing on spindle. Solid end main handle. Side handle removable. Both of stained hardwood.
Frame—malleable iron, enameled black. Large gear, enameled red. Other metal parts nickeled.
Length, 15¾ inches. Weight, each, 3¼ lbs.
Price each, without drills, $6.20. *Code—Dabak*
Packed one in a box.

No. 980



This drill is identical with No. 1080 except that it does not have the ratchet action.

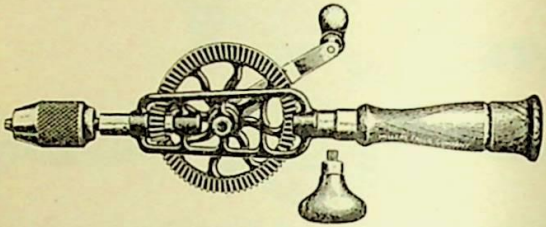
The convenience of the speed shifter on both of these drills will be particularly appreciated when it is necessary to slow up quickly from high speed. A half turn on the knurled barrel changes the speed within a fractional part of a revolution and without removing the drill from the work.

Specifications

Two speeds—gear ratios 1½ to 1 and 4 to 1.
Chuck—three jaw; improved protected springs; capacity 0-⅜ in., round shank drills. Cut Gears.
Pinions—steel, cut teeth, enclosed for protection. Idler gear to counteract outward thrust of large gear. Ball thrust bearing on spindle. Solid end main handle. Side handle removable. Both of stained hardwood.
Frame—malleable iron, enameled black. Large gear, enameled red. Other metal parts nickeled.
Length, 15¾ inches. Weight, each, 3¼ lbs.
Price each, without drills, $5.00. *Code—Dazok*
Packed one in a box.

HAND DRILL

No. 2



A strong, serviceable tool. The flat end on main handle rests comfortably against the bo[illegible] hard drilling.

Specifications

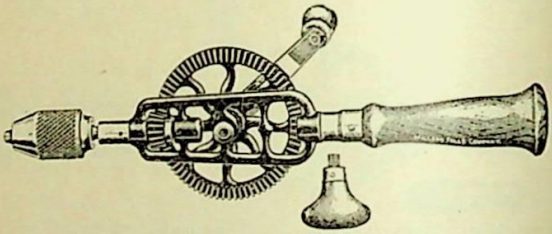
Chuck—three jaw. Improved protected springs. Capacity 0-⅜ in. round shank drills. Single speed gear ratio 4½ to 1. Ball thrust bearing. Cut gears. Steel pinion and gear stud. Adjustable friction roll to equalize bearings. Side handle detachable. Hollow end main handle of cocobolo, containing eight wood boring points. Malleable iron frame, enameled black. [illegible] gear nickeled and enameled red. Other metal [illegible] nickeled.

Length, 14½ inches. Weight, each, [illegible]

Price each, including points, $4.50. *Code*—[illegible]

Packed one in a box.

No. 2B



The same drill as No. 2 except that the main handle is solid and both main and crank ha[illegible] are of native hardwood.

Specifications

Chuck—three jaw. Improved protected springs. Capacity 0-⅜ in. round shank drills. Single speed gear ratio 4½ to 1. Ball thrust bearing. Cut gears. Steel pinion and gear stud. Adjustable friction roll to equalize bearings. Side handle detachable. Solid end main handle of native hardwood. Malleable iron frame, enameled black. Large gear nickeled and enameled [illegible] Other metal parts nickeled.

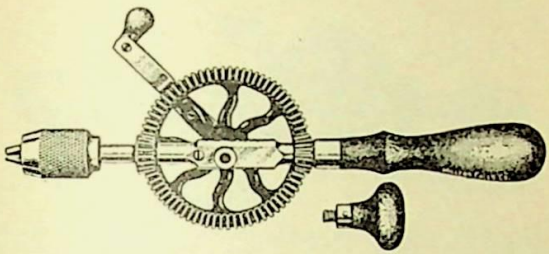
Length, 14½ inches. Weight, each, [illegible]

Price each, without drills, $4.00 *Code*—[illegible]

Packed one in a box.

HAND DRILL

No. 7



Differs from our other large drills mainly because it has solid steel frame.

Specifications

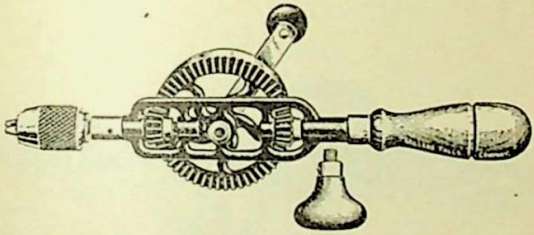
Chuck—three jaw. Improved protected springs. Capacity 0-⅜ in. round shanks. Single speed. Steel pinions. Cut gears. Idler pinion to equalize bearings. Handles stained hardwood. Main handle solid, side handle detachable. Large gear enameled red. All other metal parts polished.

Length, 13¾ inches. Weight each, 2 lbs.

Price each, without points, $3.65. *Code—Dasho*

Packed one in a box.

No. 5



The two chief features of this drill are the wide rim on the large gear which can be firmly held between the thumb and finger tips in doing delicate work, and the double pinions which make it exceptionally smooth in action. It is our most popular small hand drill.

Specifications

Chuck—three jaw, improved protected springs. Capacity 0-¼ in. round shank drills. Single speed. Ball thrust bearing. Cut gears. Steel pinions, and gear stud. Double pinion, including idler pinion to equalize the bearings. Side handle detachable. Hollow end main handle of cocobolo, containing eight wood boring points. Large gear nickeled and enameled red; malleable iron frame, enameled black. Other metal parts nickeled.

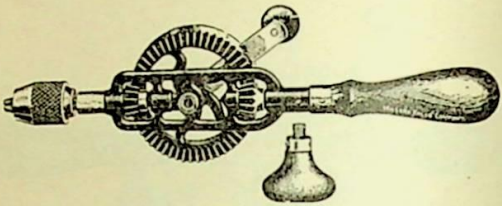
Length, 12¾ inches. Weight, each, 1¾ lbs.

Price each, with points, $3.70. *Code—Dangl*

Packed one in a box.

HAND DRILL

No. 05



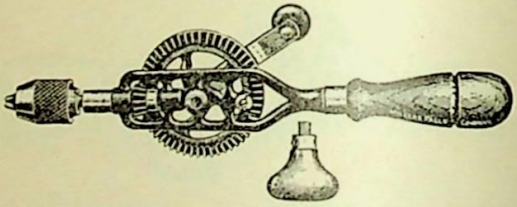
Identical with No. 5 except that the main handle is solid, of stained hardwood, and no points are furnished.

Specifications

Chuck—three jaw, improved protected springs. Capacity 0-¼ in. round shank drills.
Single speed—ball thrust bearing.
Cut gears, steel pinions and gear stud.
Double pinion, including idler pinion to equalize the bearings. Size handle detachable.

Solid end main handle of stained hardwood.
Large gear nickeled and enameled red; malleable frame, enameled black. Other metal parts nickeled.
Length 12⅝ inches. Weight each, 1¾ lbs.
Price each, $3.35. *Code—Dafae*
Packed one in a box

No. 1



Meets a demand for a small hand drill with chuck capacity of ¼ inch

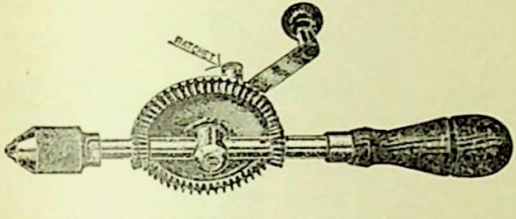
Specifications

Chuck—three jaw, improved protected springs. Capacity 0-¼ in. round shank drills. Single speed Ball thrust bearing. Cut gears. Steel pinion and gear stud.
Adjustable equalizing bearing to prevent play of large gear. Detachable side handle.
Hollow end main handle of cocobolo, containing eight wood boring points

Malleable iron frame, enameled black. Large gear enameled red. Other metal parts nickeled.
Length, 12⅝ inches. Weight each, 1¾ lbs.
Price each (with points) $3.40
Code—Dafae
Packed one in a box.

HAND DRILL (RATCHET)

No. 315

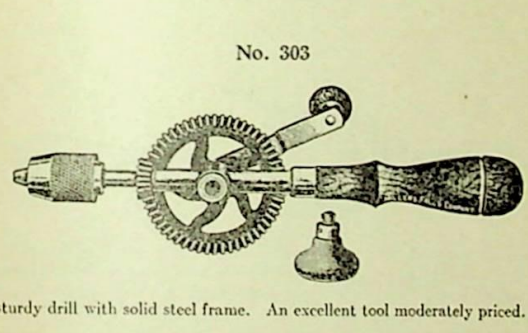


Drilling in cramped quarters, even where there is but an inch or so space to move the crank handle, is easy with this tool. Particularly serviceable for light automobile repair work.

Specifications

Chuck—three jaw; improved protected springs. Capacity, 0-¼ in. round shanks.
Ratchet—operated by boss on crank handle. Cut gears. Pinion of steel. Single speed. Hardened thrust collar. Steel idler gear to equalize bearings.
Hollow end main handle—stained hardwood.
Frame—steel, polished and nickeled.
Large gear enameled red. Other exposed metal parts nickeled.
Length, 11½ inches. Weight each, 1 lb., 3 oz.
Price each (without points) $3.85. *Code—Daglo*
Packed one in a box.

No. 303



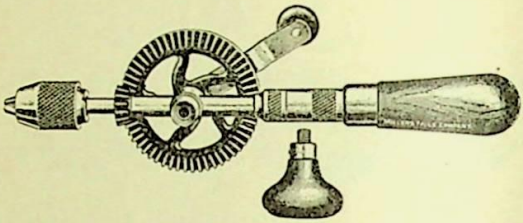
A light sturdy drill with solid steel frame. An excellent tool moderately priced.

Specifications

Chuck—three jaw, improved protected springs. Capacity 0-¼ in. round shanks. Single speed.
Cut gears. Steel pinion. Hollow end main handle. Side handle detachable. Both of stained hardwood.
All metal parts nickeled. Large gear enameled red.
Length, 11¼ inches. Weight, each, 1½ lbs.
Price each (without points) $2.85. *Code—Dance.*
Packed one in a box

HAND DRILL

No. 3



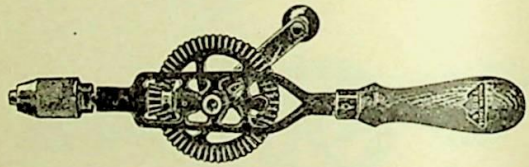
This drill differs from No. 303 only in the construction of the main handle. This is detachable and permits packing the complete drill in a very small space. Drills up to and including 3/16 inch may be carried in the handle.

Specifications

Chuck—three jaw, improved protected springs
Capacity 0-¼ in. round shanks. Single speed.
Cut gears; steel pinion.
Hollow end main handle and side handle detachable.
Both of stained hardwood.

All metal parts nickeled. Large gear enameled red.
Length, 11 inches. Weight, each, 1½ lbs.
Price each (without points) $3.45. *Code—Dunlo*
Packed one in a box.

No. 85



Every one of your customers who is interested in radio will be interested in this new drill. It is built especially for "radio fans"—is sturdy—takes all drills used in radio work; handsomely finished and most important of all perhaps, made to sell at a price within reach of every one. This is our best selling hand drill.

Specifications

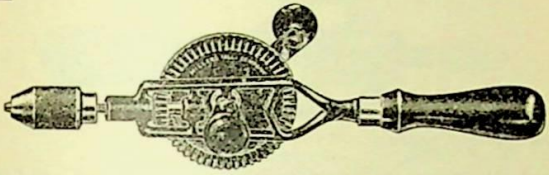
Chuck—three jaw. Improved protected springs. Capacity 0-¼ in. round shanks. Single speed. Ball thrust bearing. Cut gears. Steel pinion and gear stud.
Solid main handle of stained hardwood.
Malleable iron frame enameled black, large gear enameled red.

Other parts nickeled.
Length, 12½ inches. Weight, each, 1¼ lbs.
Price each (without points) $2.30. *Code—Dulst*
Packed one in a box.

HAND DRILL

No. 77

New Tool



This new drill offers a splendid value to those whose work does not demand the refinements of the higher priced hand drills.

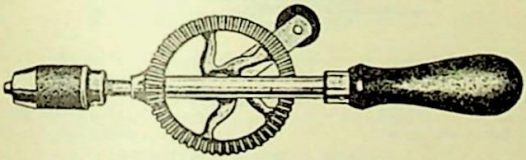
It is sturdy, well made and attractively finished, and is priced very moderately for a drill of this quality.

Specifications

Chuck—three jaw; improved protected springs.
Capacity—0-¼ inch round shank drills.
Cut gears. Steel pinion.
Malleable iron frame—enameled black.
Large gear, enameled red.
Solid end handle and side handle of stained hardwood.
Chuck—nickeled.
Length, 12½ inches. Weight each, 1 lb., 6 oz.
Price, each, $1.90. *Code—Detig*
Packed one in a box.

No. 94

New Tool

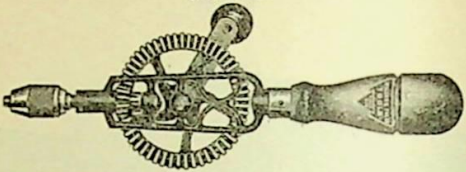


Low priced, sturdy hand drill with solid steel frame.

Specifications

Chuck—three jaw, improved protected springs.
Capacity, 0-¼ inch round shanks, single speed.
Cut gears. Steel pinion. Solid main handle of stained hardwood. Chuck and frame nickeled.
Large gear painted red.
Length, 11¾ inches. Weight each, 1 lb.
Price each (without points) $1.50. *Code—Devin*
Packed one in a box.

HAND DRILL
No. 104

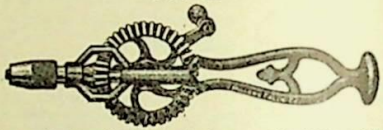


A splendid value in a low priced hand drill with hollow handle.

Specifications

Chuck—improved design, three jaw, protected spring. Capacity 0-3/16 inch. Single speed. Cut gears. Steel pinion and gear stud. Equalizing bearing to offset thrust of large gear. Malleable iron frame enameled black. Large gear enameled red. All other metal nickeled. Length, 11½ inches. Weight, each [illegible] Price each (including points) $2.50. Code— Packed one in a box.

No. 4D

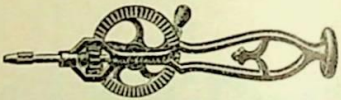


A small hand drill designed primarily for jewelers' use, and for light drilling in wood or soft [illegible]

Specifications

Chuck two jaw, capacity 1/64-⅛ in. round shanks. Cast iron frame and large gear. Frame and large gear enameled black. Steel spindle and small gear, Chuck nickeled. Length, 8 inches. Weight, each [illegible] Price each (without points) $1.30. Code— Packed one in a box.

No. 4



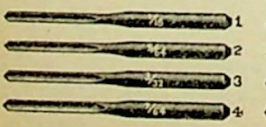
Identical with No. 4D except for the chuck, which is specially constructed for six diamond points which are supplied with the drill. These points will drill either wood or soft metal.

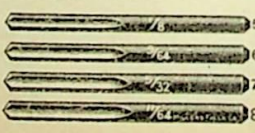
Specifications

Length, 8 inches. Weight, each, ¾ lbs. Price each (including points) $0.95. Code— Drills, per set, $0.25 Packed one in a box.

HAND DRILL POINTS
For Wood

These points are for use in wood and soft metal only.





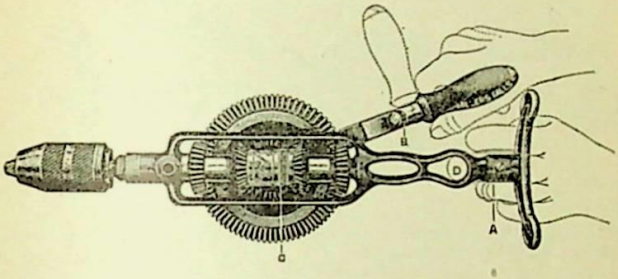
Price per set of 8, Code—Dart[illegible]

Price per dozen, Code—Dart[illegible]

Packed per set, or [illegible] en, in a round wood[illegible]

BREAST DRILL (RATCHET)

No. 97



Unquestionably the most complete breast drill on the market, not only in its capabilities but in its construction as well.

It will reach places inaccessible with the ordinary breast drill. Saves the time usually spent in tearing down to make repairs. Turning the knurled sleeve (Fig. C) operates the ratchet, pressing the knob on crank handle changes the speed instantly without removing drill from the work. No simpler operations can be conceived.

With all its ingenuity, is a fool proof, strong tool that will give a lifetime of the hardest service.

Special Features

FIVE ACTIONS:

1. Neutral position, which gives the drill the ordinary direct drive without ratchet action in both fast and slow speeds.
2. Ordinary right-hand ratchet action in which the chuck stops turning on backward stroke of the crank.
3. Ordinary left-hand ratchet action.
4. Continuous right-hand ratchet action in which the chuck turns continuously to the right on both forward and backward strokes of the crank.
5. Continuous left-hand ratchet action.

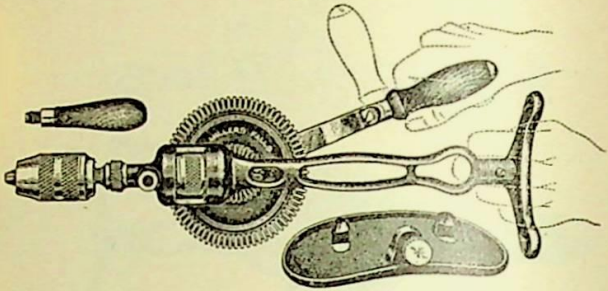
Fast and slow speeds separated by bushings, friction greatly reduced.
Crank handle adjustable for use as ordinary crank or as straight lever for ratchet action.
Frame has hand-hold for steadying tool.
Take up nut to overcome any wear in ball bearings.
Double gear drive. Improved shifter sleeve.

Specifications

Chuck—three jaw. Improved protected springs.
Capacity 0-½ in. round shanks.
Speeds—two. Gear ratios even and 2¾ to 1.
Handles—hardwood stained.
Cut gears; steel pinions.
Frame—malleable iron enameled black.
Ball thrust bearing. Large gear enameled red.
Other metal parts nickeled.
Large auxiliary breastplate.
Length, 17½ inches. Weight, each, 8¼ lbs.
Price, each, $11.65. *Code—Dater*
Packed one in a box, twelve in a case.

BREAST DRILL

No. 200



For all ordinary drilling this tool with plain right and left-hand ratchet answers every purpose. It is simple in design, yet thoroughly practical.

Special Features

Slightly rotating the knurled ring changes the speed instantly at any point, and without removing drill from work. A turn of the boss on crank handle operates the ratchet.

Crank handle usable in regular way or can be turned to straight lever for greater power.

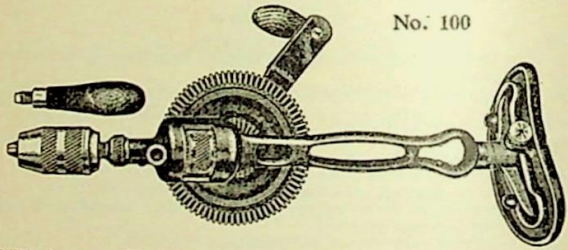
Auxiliary breastplate for comfort and power in doing heavy work.

Frame has hand hold for steadying tool.

Specifications

Chuck—three jaw; improved protected springs.
Capacity 0-½ inch round shanks.
Speeds—two. Gear ratios even and 3 to 1.
Equalizing bearing to offset play of large gear.
Cut gears. Steel pinions—protected. Ball thrust bearing.
Handles—stained hardwood.
Frame—malleable iron enameled black.
Large gear enameled red. Other metal parts nickeled.
Length, 18 inches. Weight, each, 7 lbs.
Price, each, $8.35. *Code—Dusd*
Packed one in a box and twelve in a case.

No. 100



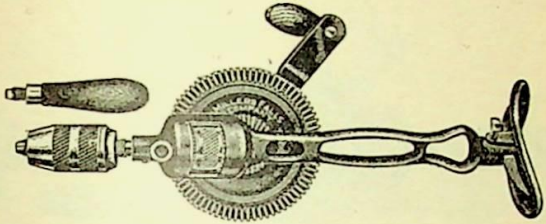
This drill is the same as No. 200 except it is without ratchet, and the crank is stationary, usable only in the ordinary way. Crank is japanned instead of nickeled.

Specifications

Chuck—three jaw. Improved protected springs.
Capacity 0-½ in. round shanks. Speeds—two.
Gear ratios even and 3 to 1.
Equalizing bearing to offset play of large gear.
Cut gears. Steel pinions—protected. Ball thrust bearing. Handles—stained hardwood.
Frame—malleable iron enameled black.
Large gear enameled red.
Crank japanned—stationary. Other metal parts nickeled.
Length, 18 inches. Weight each, 7 lbs.
Price, each, $6.20. *Code—Dusd*
Packed one in a box and twelve in a case.

BREAST DRILL

No. 2100

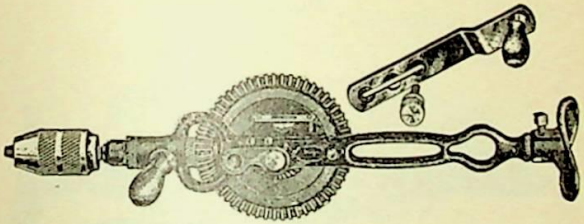


Same general construction as No. 100. The only essential difference is that it is without the ball thrust bearing and auxiliary breastplate.

Specifications

Chuck—three jaw; improved protected springs.
Capacity 0-½ inch round shanks. Speeds—two.
Gear ratios even and 3 to 1. Equalized bearing to correct play of large gear.
Cut gears. Steel pinions—protected.
Handles—stained hardwood.
Frame—malleable iron enameled black.
Large gear enameled red. Stationary crank japanned. Other metal parts polished.
Length, 17½ inches. Weight each, 5¾ lbs.
Price, each, $5.25. *Code—Deary*
Packed one in a box and twelve in a case.

No. 118



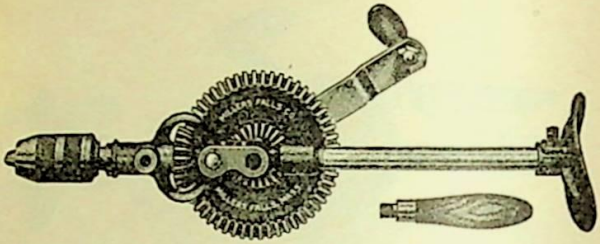
This drill has been a standard for many years. It is built along simple lines yet has every feature essential to good drilling. It is a "full of service" drill at a moderate price.

Specifications

Chuck—three jaw. Improved protected springs.
Capacity 0-½ in. round shanks. Speed—two.
Gear ratios even and 3 to 1. Changed by pressing spring and shifting large gear.
Annular ball bearing spindle, as well as ball thrust bearing, with take up nut to provide for wear.
Frame has hand hold for steadying tool.
Handles—stained hardwood. Crank handle extensible. 4 to 6 inch radius.
Cut gears. Pinion of steel. Idler roll to equalize bearing. Adjustable breastplate.
Frame malleable iron enameled black. Level attached. Large gear enameled red. Other metal parts nickeled.
Length, 17½ inches. Weight, each, 6½ lbs.
Price, each, $6.50. *Code—Decad*
Packed one in a box and twelve in a case.

BREAST DRILL

No. 29



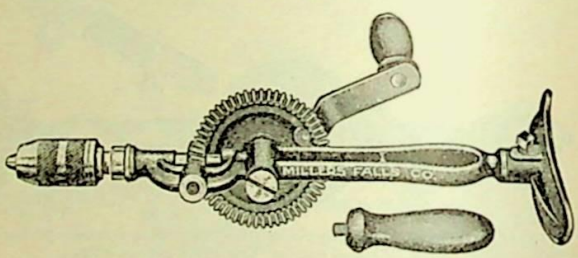
A medium priced drill. Built with all its value in its construction rather than high finish. Is of the simplest possible design yet with every essential feature.

Specifications

Chuck—three jaw; improved protected springs.
Capacity 0-½ in. round shanks. Speed—two.
Gear ratio even and 3 to 1. Changed by pressing spring and shifting large gear.
Ball thrust bearing. Cut gears. Pinion of steel.
Handles—stained hardwood.
Adjustable breast plate. Crank handle extensible. Radius 4 to 7 inches.

Frame—rolled steel and cast iron. Large gear enameled red.
Iron frame and breastplate enameled black. Other metal parts polished.
Length, 18 inches. Weight, each, 6¼ lbs.
Price, each, $4.75. *Code—Dunn*
Packed one in a box and twelve in a case.

No. 212



This tool is made especially for those who have only an occasional use for a breast drill. It is inexpensive, yet well built and will give satisfaction and good service on light work.

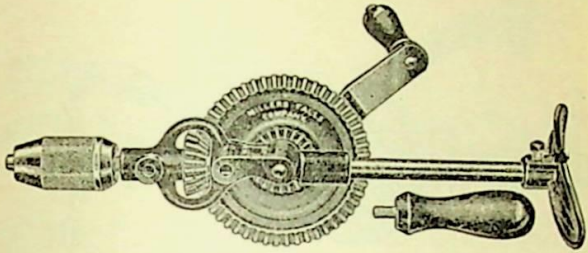
Specifications

Chuck—three jaw; improved protected springs.
Capacity 0-⅜ in. round shanks. One speed.
Gear ratio 3½ to 1.
Frame—malleable iron enameled black. Hardened steel washer as thrust bearing. Large gear—enameled red. Cut gears. Small gear of steel.

Chuck—polished.
Adjustable breastplate.
Length, 14½ inches. Weight each, 3¾ lbs.
Price, each, $3.75. *Code—Dunn*
Packed one in a box.

BREAST DRILL

No. 120



A low priced drill, built for those whose work does not require the refinements of the higher priced tools.

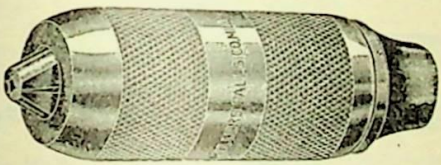
It is well made and affords an efficient drill at a minimum cost.

Specifications

Chuck—three jaw. Improved protected springs.
Capacity 0-½ in. round shanks. Speed—two.
Bearing—ball thrust.
Gear ratios—even and 3 to 1. Changed by pressing spring and shifting large gear.
Cut gears. Pinion of steel. Adjustable breastplate.
Frame—rolled steel and cast iron. Large gear enameled red.
Iron frame, breastplate and crank enameled black.
Other metal parts polished.
Length, 15⅝ inches. Weight, each, 5¼ lbs.
Price, each, $3.75. *Code—Dared*
Packed one in a box and twelve in a case.

BREAST DRILL CHUCK

No. 153



The purpose of this chuck is to convert a three jaw breast or bench drill into a two-jaw type. It will be found especially practicable where the drilling requirements range from the use of small round shanks to the use of bit and No. 1 Morse taper shanks. Shank is square for convenience in tightening.

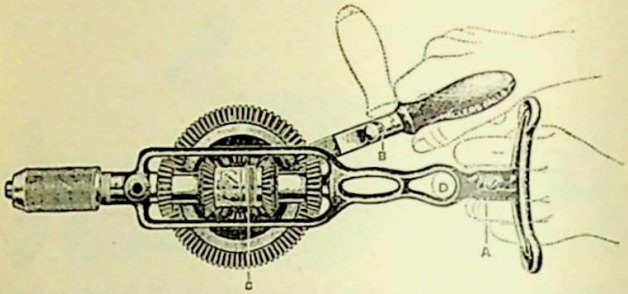
No. 153 is our Master type, holding round shanks from 1/16 to 1/2 inches, bit and No. 1 Morse taper shanks. It fits the spindle of any Millers Falls' breast or bench drill equipped with three jaw chucks, capacity 0 to ½ inch.

Specifications

Weight, each, 13 oz.
Price, each, $1.65
Code—Dilat.
Packed one in a box.

BREAST DRILL (RATCHET)

No. 87

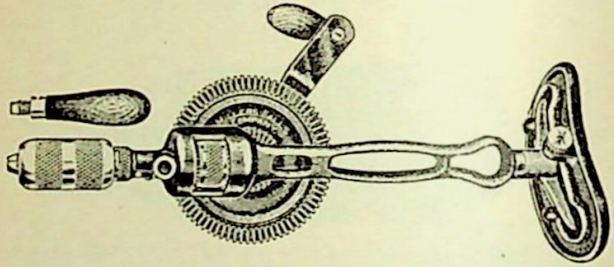


The same drill as No. 97 (page 63) in every particular, except has Master two-jaw chuck. The advantage of this type of chuck lies in the patent milled forged steel jaws that hold bit, round from 1/8 to 1/2 inch, and No. 1 Morse Taper shanks.

Specifications

Chuck—master two jaw. Capacity 1/4 to 1/2 inch round shanks, bitstock shanks and No. 1 Morse Taper shanks.
Speeds—two. Gear ratios even and 2¾ to 1.
Handles—hardwood stained.
Cut gears. Steel pinions.
Frame—malleable iron enameled black.
Ball thrust bearings. Large gear enameled red. Other metal parts nickeled.
Length, 17 inches. Weight, each, 8 lbs.
Price, each, $10.50. *Code—Dunce*
Packed one in a box and twelve in a case.

No. 99



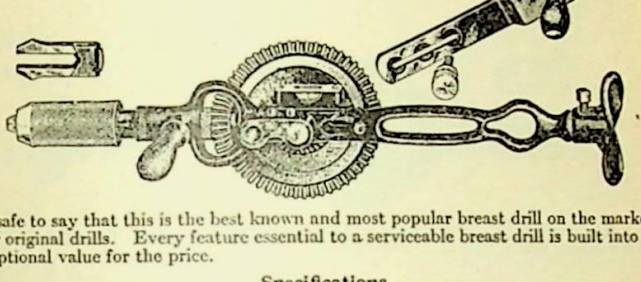
This drill is the same as No. 100 (page 64) except that it has Master chuck. It is one of our newer drills, characterized by its simplicity of design.

Specifications

Chuck—master two jaw. Capacity 1/4 to 1/2 in. round shanks, bitstock shanks and No. 1 Morse Taper shanks.
Speeds—two. Gear ratios even and 3 to 1. Equalizing bearing to offset play of large gear. Cut gears. Steel pinions—protected. Ball thrust bearing.
Handles—stained hardwood.
Frame—malleable iron enameled black.
Large gear enameled red.
Stationary crank japanned.
Other metal parts nickeled.
Length, 18 inches. Weight, each, 7 lbs.
Price, each, $6.05. *Code—Ducat*
Packed one in a box and twelve in a case.

BREAST DRILL

No. 12



It is safe to say that this is the best known and most popular breast drill on the market. It is one of our original drills. Every feature essential to a serviceable breast drill is built into it, and it has an exceptional value for the price.

Specifications

Chuck—master two jaw. Capacity ¼ to ½ in. round shanks, bitstock shanks and No. 1 Morse Taper shanks.

Speed—two. Gear ratios even and 3 to 1. Changed by pressing spring and shifting large gear.

Annular ball bearing spindle, as well as ball thrust bearing, with take up nut to provide for wear. Frame has hand hold for steadying tool.

Handles—stained hardwood. Crank handle extensible. 4 to 6 inch radius. Cut gears. Pinion of steel. Idler roll to equalize bearing. Adjustable breastplate.

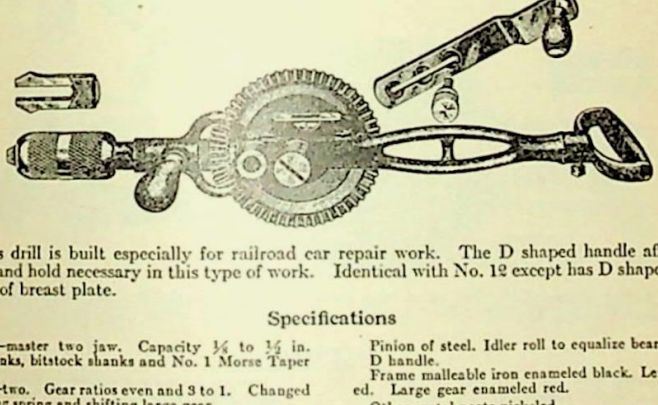
Frame malleable iron enameled black. Level attached. Large gear enameled red. Other parts nickeled.

Length, 17½ inches. Weight, each, 6½ lbs.

Price, each, $5.75. *Code—Debut*

Packed one in a box and twelve in a case.

No. 15



This drill is built especially for railroad car repair work. The D shaped handle affords the secure hand hold necessary in this type of work. Identical with No. 12 except has D shaped handle in place of breast plate.

Specifications

Chuck—master two jaw. Capacity ¼ to ½ in. round shanks, bitstock shanks and No. 1 Morse Taper shanks.

Speed—two. Gear ratios even and 3 to 1. Changed by pressing spring and shifting large gear.

Annular ball bearing spindle, with take up nut to provide for wear. Frame has hand hold for steadying tool.

Handles—stained hardwood. Crank handle extensible. 4 to 6 inch radius. Cut gears. Pinion of steel. Idler roll to equalize bearing. D handle.

Frame malleable iron enameled black. Level attached. Large gear enameled red.

Other metal parts nickeled.

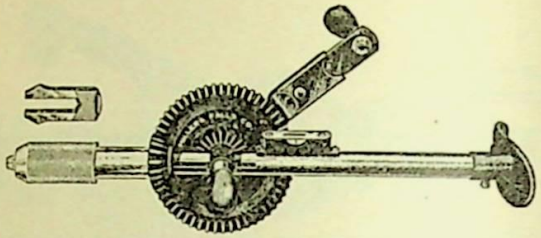
Length, 19 inches. Weight, each, 6½ lbs.

Price, each, $5.75. *Code—Decap*

Packed one in a box and twelve in a case.

BREAST DRILL

No. 10

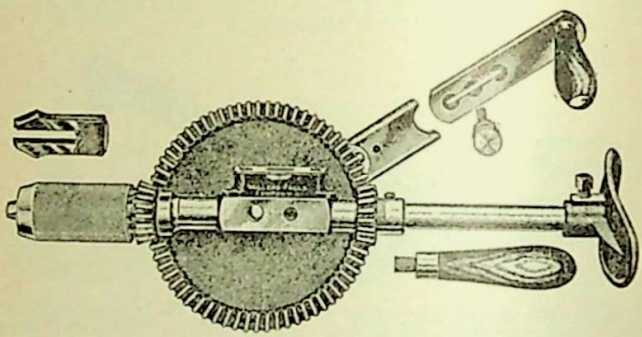


This drill is preferred by many mechanics because of its solid steel frame. It is a well balanced tool, built along simple lines and is handsome in appearance.

Specifications

Chuck—master two jaw. Capacity 1/4 to 1/2 in. round shanks, bitstock shanks, and No. 1 Morse Taper shanks.
Speed—two. Gear ratios even and 3 to 1.
Cut gears. Steel pinion. Ball thrust bearing.
Crank handle extensible 5 1/2 to 7 in
Adjustable breastplate. Level attached.
Handles—stained hardwood.
Frame—solid steel polished and nickeled.
Length, 17 inches. Weight, each, 6 1/2 lbs.
Price, each, $6.90. *Code—Dolor*
Packed one in a box and twelve in a case.

No. 13



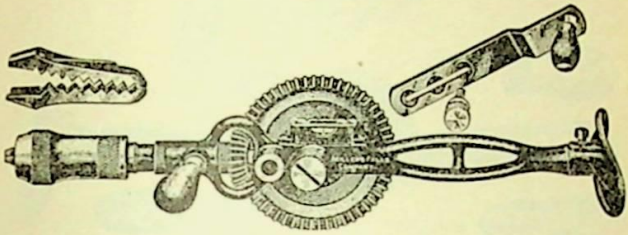
The feature of this drill is the extra large main gear, with diameter of 6 inches, which gives a speed of approximately 4 1/2 to 1. It is especially desirable where rapid drilling is essential.

Specifications

Chuck—master two jaw. Capacity 1/4 to 1/2 in. round shanks, bitstock shanks and No. 1 Morse Taper shanks.
Speed—single. Gear ratio 4 1/2 to 1.
Cut gears. Steel pinions. Idler gear to equalize bearings. Ball thrust bearing.
Crank handle extensible 5 1/2 to 7 in.
Adjustable breastplate. Level attached.
Handles—stained hardwood.
Frame—solid steel polished and nickeled.
Length, 15 inches. Weight, each, 5 1/4 lbs.
Price, each, $7.20. *Code—Dolor*
Packed one in a box and twelve in a case.

BREAST DRILL

No. 12A

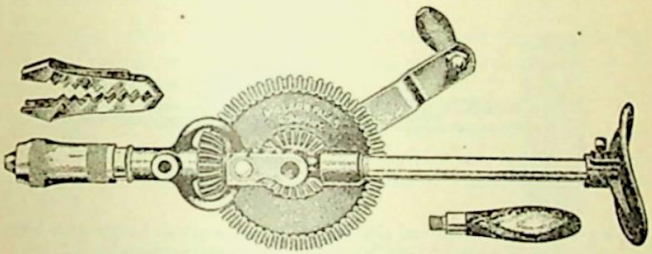


There are many mechanics whose work principally requires the use of bit shank drills. To meet this demand we build several breast drills with our Barber two jaw chuck. Otherwise identical with No. 12.

Specifications

Chuck—Barber two jaw, for bitstock shanks only.
Speed—two. Gear ratios even and 3 to 1. Changed by pressing spring and shifting large gear.
Annular ball bearing spindle, as well as ball thrust bearing, with take up nut to provide for wear.
Frame has hand hold for steadying tool.
Handles—stained hardwood.
Crank handle extensible. 4 to 6 inch radius.
Cut gears. Pinion of steel. Idler roll to equalize bearing. Adjustable breastplate.
Frame malleable iron enameled black.
Level attached.
Large gear enameled red. Other metal parts nickeled.
Length, 17½ inches. Weight, each, 6¾ lbs.
Price, each, $5.65. *Code—Decap*
Packed one in a box and twelve in a case.

No. 19



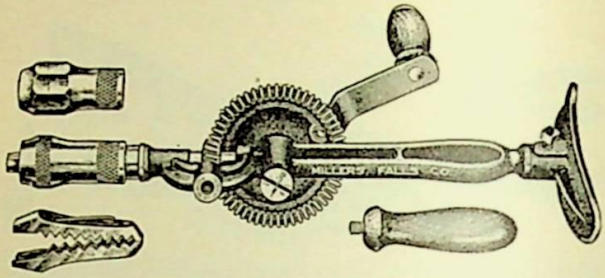
Every feature essential to efficient drilling is built into this tool. Because of its simple design it is less expensive than some of our other drills.

Specifications

Chuck—Barber, two jaw for bit stock shanks only.
Speed—two. Gear ratios even and 3 to 1. Changed by pressing spring and shifting large gear.
Ball thrust bearing. Cut gears Pinion of steel.
Handles—stained hardwood.
Adjustable breastplate. Crank handle extensible. Radius 4 to 7 inches.
Frame—rolled steel and cast iron.
Large gear enameled red. Iron frame and breastplate enameled black. Other metal parts polished.
Length, 18 inches. Weight, each, 6½ lbs.
Price, each, $4.40. *Code—Decus*
Packed one in a box and twelve in a case.

BREAST DRILL

No. 112



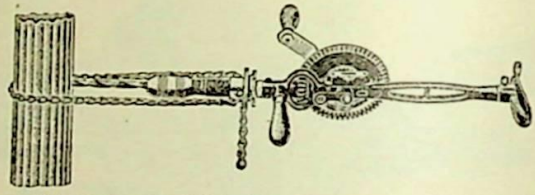
An ideal drill for use about the home or for light work. It is built primarily for those who have but occasional use for a breast drill. Identical with No. 212 (page 66) except has Barber chuck for bit shanks only.

Specifications

Chuck—Barber, two jaw for bitstock shanks only.
One speed. Gear ratio 3½ to 1.
Frame—malleable iron enameled black.
Hardened steel washer as thrust bearing.
Large gear—enameled red. Cut gears. Small gear of steel. Chuck—polished.
Adjustable breastplate.

Length, 15 inches. Weight, each, 4 lbs.
Price, each, $5.15. *Code—Dusk*
Packed one in a box and twelve in a case.
Furnished with octagon shells, each, extra, $0.25.
Equipped with level, each, extra, $0.20.
Extra jaws, plain with fine print for small sizes of round shanks, per pair, $0.25.

No. 25



This tool is a combination breast and chain drill. Its purpose is to facilitate the drilling of rails, girders, pipe or any material where it is possible to put a chain around the work.

It is superior to the separate drills in construction, because it is much more compact; and in operation, because the work is brought nearer to the operator.

Specifications

The breast drill is our No. 12 (page 69) with Master chuck, holding bit, round from ⅛ to ½ inch and No. 1 Morse Taper shanks.

The chain drill is our No. 718 pattern having both automatic friction feed and hand feed. Requires no pressure whatever on the breastplate.

Ball thrust bearings at two points in the main drill and also in the chain drill extension, make it exceptionally free running. Three feet of stout chain is furnished for the chain drill.

Length, 20 inches. Weight, each, 8 lbs.
Price, each, $8.25. *Code—Dare*

HACK SAW FRAMES

For nearly fifty years Millers Falls Company has been identified with the manufacture of hack saw frames.

Of the most popular types are the Millers Falls "Pistol Grip" and "Easy Grip" frames. The outstanding feature of these frames is the handle, which conforms to the shape of the hand, is well balanced and permits perfect control of the frame as far as the arm can reach. This handle has been improved so that it eliminates hand cramp and affords a grip so effective that blade breakage is considerably lessened. Detailed specifications on these frames are given in the following pages.

None but the best grade of cold drawn round edge steel is used in Millers Falls frames. The bends are uniformly even so that the blade lines parallel with the back of the frame.

The better grade frames are highly polished and heavily nickel plated. The wooden handles, turned out in our own woodworking shop, are characterized by their smooth, highly polished surface.

All frames are equipped with a patent under cut stud, with blade pins set at an angle to prevent saw falling off if turned at right angles in the frame; also the clamp pins, which are set diagonal, rather than parallel, to withstand greater strain.

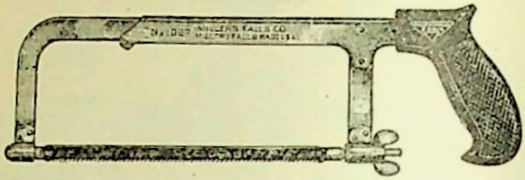
There have been a number of frames added since the issuance of our last catalog and improvements made in a number of the older types.

There is a broad range from which to choose and while some frames differ in finish or a little refinement, each one is made to the Millers Falls standard. This broad range will take care of any requirements in this line.

HACK SAW FRAMES

"Pistol Grip"

No. 1027



The handle and back reinforcement are one piece, and adjustment is made by means of one pin. This adds strength to the back and makes possible an easy and rapid adjustment. The space between the handle and the frame has been increased providing ample space for even the largest hand.

The handle is moulded in one piece and so designed that the entire frame "hangs" perfectly. Steel rib extending the length of the handle makes it practically unbreakable.

End opposite handle is built close to frame permitting work in very close corners.

Blades strained by thumb nut under handle where it does not interfere with stroke. Blades faceable in four directions.

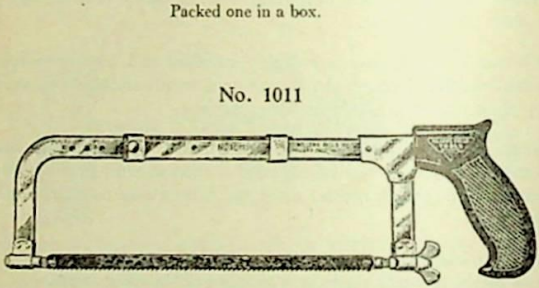
Polished and nickel plated frame and special black composition handle. One 10 in. blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3¼ in.	3/16 x 11/16 in.	1¾ lbs.	$1.75

Code—Ichno

Packed one in a box.

No. 1011



This frame differs from No. 1027 only in depth and the construction of the back. It has the yoke style adjustment, which is exceptionally strong and rigid. Back is graduated to show different lengths of saws.

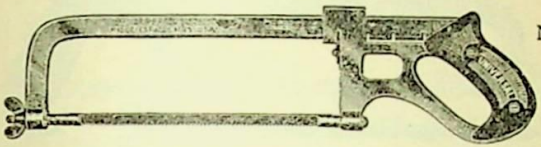
Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3½ in.	3/16 x 11/16 in.	2 lbs.	$2.65

Code—Ichor

Packed one in a box.

HACK SAW FRAMES

"Easy Grip"



No. 12

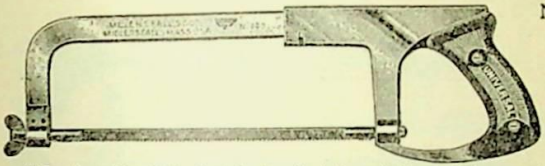
The handle on this frame affords a grip similar to No. 1027, but differs in construction—it being a part of the adjustable slide on frame. Special black composition handles are screwed on either side.

Blades are strained by thumb nut and faceable in four directions. Polished and nickel plated frame. One 10 in. blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3⅛ in.	3/16 x 13/16 in.	2 lbs.	$3.15

Code—Ician

Packed one in a box.



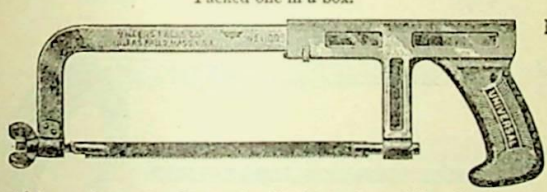
No. 140

This frame differs from No. 12 in that the handle is brought forward closer to the blade, and the housing for the body is extended 2¼ inches forward of the post. This construction insures more rigidity and gives the frame unusual strength.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3⅛ in.	3/16 x 13/16 in.	2 lbs.	$3.90

Code—Icily

Packed one in a box.



No. 1100

An all metal frame of exceptional strength. Back one piece solid steel, will not bend or buckle. Entire frame is sheradized to prevent rust, and for this reason particularly adapted for outdoor use.

"Pistol Grip" handle affords firm, comfortable hold and eliminates hand cramp.

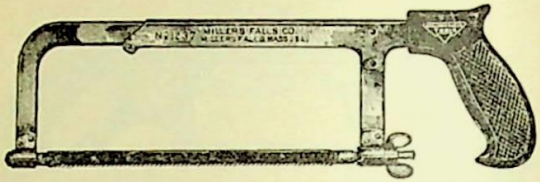
Stop pin prevents frame from sliding out of handle.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3⅛ in.	3/16 x 13/16 in.	1 lb., 4 oz.	$2.40

Code—Icery

Packed one in a box.

HACK SAW FRAMES



This new frame has been designed so as to give perfect balance thruout. It embodies many excellent features, chief among which is the "pistol grip" handle which is so popular today. The end opposite the handle is built close to the frame which facilitates working in close corners.

The back is specially reinforced to withstand great strain. The blade, which is faceable in four directions, is strained by thumb nut under handle where it does not interfere with stroke.

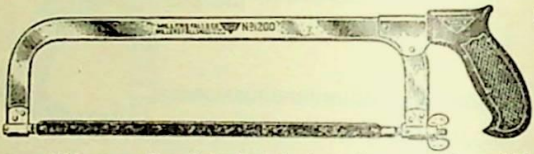
Handle—black composition. Frame—nickel plated. One 10 in. blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3¼ in.	3/16 x 11/16 in.	1¾ lb.	$1.20

Code—Inver

Packed one in a box.

No. 1200



Here is a new addition to our line of pistol grip hack saw frames. It is a solid back type with capacity of 12 in. blades only. An especially strong frame, built to stand hard usage.

Handle same as No. 1027. Blades strained by thumb nut and faceable in four directions.

One 12 in. blade furnished with each frame.

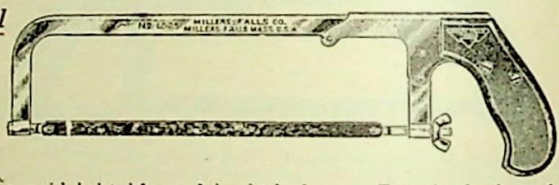
Capacity	Depth	Stock	Weight each	Price each
12 in.	3 ½ in.	3/16 x 13/16 in.	1½ lbs.	$1.75

Code—Image

Packed one in a box.

New Tool

No. 12



This is a new nickel plated frame of the pistol grip type. Exceptional value and low price. Quickly adjusted for different length of blades. Well balanced and with easy grip.

Frame—nickel plated. Handle—black enameled hardwood.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	2½ in.	3/16 x 11/16 in.	1¼ lbs.	$0.6

Code—Imota

Packed two in a box.

HACK SAW FRAMES

Nos. 10 and 11

Unusually rigid back. Adjustment easily made by set screw. End opposite handle built close ppermitting operation in close corners. Check nut keeps blade from falling off if turned at right angle.

Blades strained by handle and faceable in four directions. Scale for different lengths on back oef frame.

Polished and nickel plated. Cocobolo handle. One 10 in. blade with each frame.

	Capacity	Depth	Stock	Weight each	Price each
No. 10	8–12 in.	2⅜ in.	3/16 x 11/16 in.	1 lb. 5 oz.	$2.25
No. 11	8–12 in.	3½ in.	3/16 x 11/16 in.	1½ lbs.	2.40

Code No. 10—Icing *Code No. 11—Icily*

Packed one in a box.

No. 6

A compact, stiff frame with solid back, adjustable by means of sliding end post. Otherwise, construction and finish same as No. 10.

One 12 in. blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
6-12 in.	2¾ in.	3/16 x 13/16 in.	1 lb., 7 oz.	$2.25

Code—Icono

Packed one in a box.

No. 9

A light, yet strong frame. Adjustable by means of sheath back. Blades strained by turning handle and can be faced in four directions.

Knurled check nut holds blade in place.

Polished and nickel plated. Cocobolo handle. One 10 in. blade furnished with each frame.

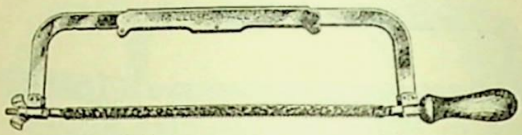
Capacity	Depth	Stock	Weight each	Price each
8-12 in.	2¾ in.	3/16 x 9/16 in.	1 lb., 3 oz.	$2.00

Code—Icosa

Packed one in a box.

HACK SAW FRAMES

No. 27



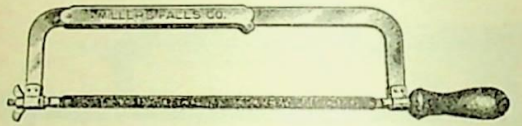
Same back construction as No. 9 but of heavier stock. Blades strained by thumb nut and can be faced in four directions. Polished and nickel plated steel stock. Stained hardwood handle. One 10 in. blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3¼ in.	3/16 x 11/16 in.	1 lb., 6 oz.	$1.70

Code—Ideal

Packed one in a box.

No. 26



A light, stiff frame with sheath back. In this type one end of the frame is solid in back, and adjustment for blades made with opposite end.

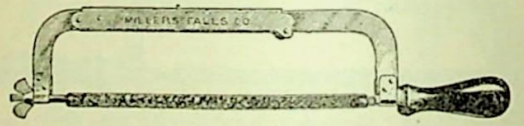
Blades strained by thumb nut and can be faced in four directions. Polished and nickel plated steel. Stained hardwood handle. One 10 in. blade furnished with each frame.

Capacity	Depth	Stock	Weight each	Price each
8–12 in.	3½ in.	3/16 x 11/16 in.	1 lb., 6 oz.	$1.50

Code—Idiot

Packed one in a box.

No. 78



A low priced extensible frame differing from No. 26 only in the size of steel stock and the fact that the square stud can be swivelled without removing stud from the frame.

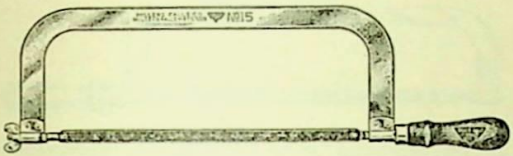
Capacity	Depth	Stock	Weight each	Price each
8–12 in.	2½ in.	5/32 x 11/16 in.	1 lb.	$1.10

Code—Idler

Packed one in a box.

HACK SAW FRAMES

Nos. 15 and 515



These frames are made extra heavy for work on rails, girders, etc. Blades are strained by thumb nut and are faceable in four directions. Knurled check nut holds blade in place.

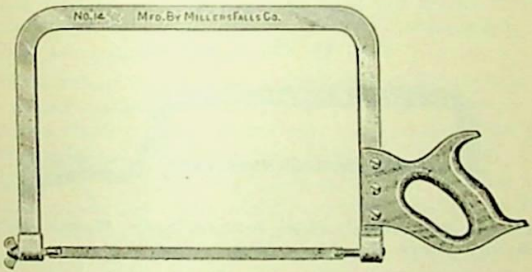
No. 15 is polished and nickel plated. No. 515 is enameled black. Both have stained hardwood handle. One 12 in. blade furnished with each frame.

	Capacity	Depth	Stock	Weight each	Price each
No. 15	12 in.	5¼ in.	1 x ¼ in.	2 lbs., 7 oz.	$2.90
No. 515	12 in.	5¼ in.	1 x ¼ in.	2 lbs., 7 oz.	2.25

Code No. 15—Idyll *Code No. 515—Iliac*

Packed one in a box.

Nos. 14, 14½ and 24



Deep, heavy frames for sawing steel rails, girders and other large work. Handle of beech wood, shaped to give firm, comfortable grip. Nos. 14 and 14½ polished and nickel plated. No. 24 enameled black. One 12 in. blade furnished with each frame.

	Capacity	Depth	Stock	Weight each	Price each
No. 14	12 in.	10¼ in.	1 x ¼ in.	3 lbs., 10 oz.	$4.15
No. 14½	12 in.	7¼ in.	1 x ¼ in.	3 lbs.	3.70
No. 24	12 in.	10¼ in.	1 x ¼ in.	3 lbs., 10 oz.	2.70

Code No. 14—Ileum *Code No. 14½—Ilkon* *Code No. 24—Ileck*

Packed one in a box.

HACK SAW FRAMES

Nos. 124-126

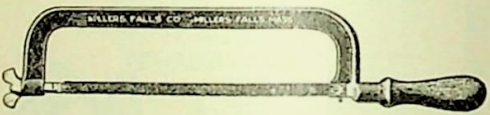
Low price solid back steel frames. Blades strained by handle and faceable in four direc
Nickel plated. Stained hardwood handle. One blade furnished with each frame.

	Capacity	Depth	Stock	Weight each	Price e
No. 124	8 in.	3⅛ in.	3/16 x 11/16 in.	14 oz.	$
No. 125	10 in.	3⅛ in.	3/16 x 11/16 in.	1 lb.	1
No. 126	12 in.	3⅛ in.	3/16 x 11/16 in.	1 lb., 3 oz.	1

Code No. 124—Imbay *Code No. 125—Imbed* *Code No. 126—Imbue*

Packed one in a box.

Nos. 4A, 4B, 4C and 4D



Cast iron frames, black enameled. Stained hardwood handle. Blades strained by thumb
and faceable in four directions. No blade furnished.

	Capacity	Depth	Weight each	Price each	Code
No. 4A	8 in.	2¼ in.	1 lb.	$.55	Imbi
No. 4B	9 in.	2¼ in.	1⅛ lbs.	.60	Imbj
No. 4C	10 in.	2¼ in.	1¼ lbs.	.65	Imbr
No. 4D	12 in.	2¼ in.	1⅜ lbs.	.70	Imbm

Packed six in a box.

HACK SAW BLADES

For a half century Millers Falls Company has marketed hack saw blades. In August, 1920, we became manufacturers as well as distributors of our own hack saw blades. At that time we acquired complete control of the West Haven Mfg. Co. of West Haven, Conn., which for twenty-four years had successfully made the "Universal" hack saw (often called the "Globe" saw because of the Globe stamp used as a trade mark). This blade was of recognized sterling quality. To the "Universal" brand we added a blade under our own name "Millers Falls".

Both are made of a special analysis of tungsten steel, the result of many years of study of hack sawing problems.

The teeth are milled, which insures a sharp, solid cutting edge. The style of set is patented, and is unexcelled for accuracy and clearance. The saws cut freely until worn dull. Each blade is hardened individually. This insures uniformity impossible in the common method of hardening in lots of four to twelve.

The hand blades are made in both all hard and flexible types—the power blades, all hard only. The range of lengths, widths, gauges and teeth cuts, cover every possible hack sawing requirement.

The Millers Falls standard has ever been set high for precision, honesty and fine design in tool making. Confidence has long been shown by the trade in stocking and distributing Millers Falls tools. The same confidence can well be placed in Millers Falls and Universal hack saws.

Since our catalog No. 39, Millers Falls Company has developed what is known as a High Speed hack saw blade, which is recommended for cutting very hard material such as carbon tool steel, chrome nickel, high speed and alloy steels, monel metal, nichrome and all classes of production work. The outstanding feature of the high speed blade is that its life is very much longer than a regular tungsten blade and it cuts much faster.. The power blades are generally used in what is termed a High Speed hack saw machine. On production work they greatly reduce the cutting cost.

On band saws many improvements have been made in the method of manufacturing and also a higher quality of steel is used, thereby increasing the cutting efficiency and giving longer life to the blade.

MILLERS FALLS HAND HACK SAWS

All Hard (Tungsten)

No.	Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
8	10	½	025-23	14	$10.00	*Hable*	½ gross	5 lbs.
5	12	9/16	025-23	14	12.00	*Hadst*	½ gross	6¼ lbs.
11	8	7/16	025-23	18	8.00	*Hairs*	½ gross	3½ lbs.
13	10	½	025-23	18	10.00	*Hamer*	½ gross	5 lbs.
15	12	9/16	025-23	18	12.00	*Hance*	½ gross	6¼ lbs.
21	8	7/16	025-23	24	8.00	*Hanum*	½ gross	3½ lbs.
23	10	½	025-23	24	10.00	*Happy*	½ gross	5 lbs.
25	12	9/16	025-23	24	12.00	*Harem*	½ gross	6¼ lbs.
31	8	7/16	025-23	32	8.00	*Harot*	½ gross	3½ lbs.
33	10	½	025-23	32	10.00	*Harpa*	½ gross	5 lbs.
35	12	½	025-23	32	12.00	*Harsh*	½ gross	6½ lbs.

All hard blades are recommended for general all around work and are always furnished unless flexible are specified.

Suggestions for Using Hand Blades

Insert blade in frame with teeth pointing away from operator.

Strain blade tightly.

Bear down on forward stroke sufficiently to avoid sliding saw over the work

Sliding over the surface glazes the cutting edges and dulls the saw.

Always lift the blade on the return stroke. Failure to do so results in rubbing action and rapid dulling.

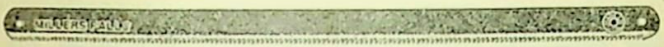
Retighten blade after the first few strokes. This prevents wobbling and crooked cutting.

Thirty-five to forty strokes per minute is fast enough. Too rapid cutting draws the temper and ruins the blade.

The chart on page 85 explains the use of each blade.

MILLERS FALLS HAND HACK SAWS

Flexible (Tungsten)



No.	Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
43	10	½	025–23	14	10.00	*Heard*	½ gross	5 lbs.
45	12	½	025–23	14	12.00	*Heath*	½ gross	6½ lbs.
51	8	7/16	025–23	18	8.00	*Heave*	½ gross	3½ lbs.
53	10	½	025–23	18	10.00	*Hecto*	½ gross	5 lbs.
55	12	½	025–23	18	12.00	*Helio*	½ gross	6½ lbs.
61	8	7/16	025–23	24	8.00	*Helix*	½ gross	3½ lbs.
63	10	½	025–23	24	10.00	*Helve*	½ gross	5 lbs.
65	12	½	025–23	24	12.00	*Hemor*	½ gross	6½ lbs.
71	8	7/16	025–23	32	8.00	*Hence*	½ gross	3½ lbs.
73	10	½	025–23	32	10.00	*Hepta*	½ gross	5 lbs.
75	12	½	025–23	32	12.00	*Herse*	½ gross	6½ lbs.

Flexible blades differ from "all hard" in that the teeth only are hardened.

Recommended for use particularly on thin sections of soft materials, both sheet and tubing.

Superior to the "all hard" for use in out of the way places, and when frame must be held in either than a normal position.

Electricians, plumbers and steam fitters will find this type of blade more economical than "all hard".

Special Flexible Suggestions

Flexible blades should be strained tighter in frame than "all hard".

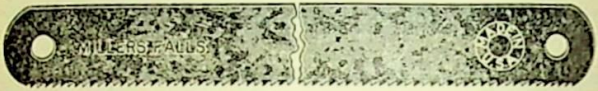
Because they stretch more readily tension should be increased frequently while in use.

When starting a new blade in an old cut, give work a quarter turn if possible. This will overcome the binding due to wider set of new blade.

The chart on page 85 explains the use of each blade.

MILLERS FALLS POWER HACK SAWS

All Hard (Tungsten)



No.	Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
100	10	¾	049-18	10	$24.72	*Hiber*	½ gross	15½ lbs.
120	12	¾	032-21	14	21.36	*Hicup*	½ gross	11½ lbs.
127	12	¾	032-21	18	21.36	*Hicol*	½ gross	11½ lbs.
121	12	¾	049-18	10	28.92	*Hiden*	½ gross	17¾ lbs.
122	12	¾	049-18	14	28.92	*Hiero*	½ gross	17¾ lbs.
123	12	1	049-18	10	37.92	*Hifer*	¼ gross	23 lbs.
124	12	1	049-18	14	37.92	*Higre*	¼ gross	23 lbs.
125	12	⅝	032-21	14	17.88	*Hinge*	½ gross	10 lbs.
126	12	⅝	032-21	18	17.88	*Hilly*	½ gross	10 lbs.
141	14	¾	049-18	10	33.12	*Hindi*	¼ gross	20 lbs.
142	14	¾	049-18	14	33.12	*Hippa*	¼ gross	20 lbs.
143	14	1	049-18	10	43.56	*Hirer*	¼ gross	25½ lbs.
144	14	1	049-18	14	43.56	*Histo*	¼ gross	25½ lbs.
146	14	1¼	065-16	4	61.32	*Hiros*	¼ gross	36 lbs.
147	14	1¼	065-16	6	61.32	*Hiwie*	¼ gross	36 lbs.
148	14	1¼	065-16	10	61.32	*Hitch*	¼ gross	36 lbs.
172	17	1	049-18	14	51.72	*Hobit*	¼ gross	33 lbs.
174	17	1¼	065-16	4	71.76	*Heder*	¼ gross	45 lbs.
175	17	1¼	065-16	6	71.76	*Hosts*	¼ gross	45 lbs.
176	17	1¼	065-16	10	71.76	*Hocco*	¼ gross	45 lbs.
185	18	1¼	065-16	6	75.48	*Howes*	1/12 gross	58½ lbs.
184	18	1¼	065-16	10	75.48	*Hoven*	1/12 gross	58½ lbs.
212	21	1½	065-16	4	104.64	*Huver*	1/12 gross	72 lbs.
213	21	1½	065-16	6	104.64	*Hupps*	1/12 gross	72 lbs.
214	21	1½	065-16	10	104.64	*Huron*	1/12 gross	72 lbs.
242	24	1½	065-16	6	119.04	*Helwe*	1/12 gross	96 lbs.
244	24	1½	065-16	10	119.04	*Hutum*	1/12 gross	96 lbs.

14" and 17" power hack saws are ½" less to centers than length given. All other blades are true to lengths stated.

Too light a pressure allows saw to slide, dull quickly and without cutting effectively.

Rigidity is important. Wherever possible lock work securely in a vise.

Place work so that as much bearing as possible is provided for the saw.

The use of cutting solutions will greatly increase your output, and prolong the life of the blade.

Cutting dry on light machines, run 50 strokes per minute.

Cutting with solution on medium and heavy machines, 100 strokes per minute are recommended for soft machinery steel and wrought iron. Seventy to eighty strokes for hard tool or annealed steel.

Do not cut unannealed steel.

The chart on page 85 explains the use of each blade.

MILLERS FALLS HACK SAW CHART

In order to obtain the maximum cutting from a hack saw blade, and a resulting minimum sawing cost, it is imperative that the proper saw is used.

In hand blades the number of teeth per inch is the chief consideration; in power blades the width and gauge also are essential factors.

The chart below illustrates clearly and concisely the correct blade to use on any given material. This chart is made up from actual tests made in our own plant and will, if followed, reduce direct sawing costs as well as the cost of saws.

Length in Inches	Width in Inches	Thickness	HAND ALL HARD Order by Numbers Below				HAND FLEXIBLE Order by Numbers Below				List Price per Gross
			Brass, Copper, Soft Steel, Cast Iron, Aluminum	Iron Pipe, Tool Steel, Light Angle Iron	Drill Rod, Medium Tubing, Sheet Metals	Thin Tubing, Electric Casings, Thin Sheet Metals	Brass, Copper Soft Steel, Cast Iron, Aluminum	Iron Pipe, Tool Steel Light Angle Iron	Drill Rod, Medium Tubing, Sheet Metals	Thin Tubing, Electric Casings, Thin Sheet Metals	
			14 Teeth	18 Teeth	24 Teeth	32 Teeth	14 Teeth	18 Teeth	24 Teeth	32 Teeth	
8	7/16	23 Ga.—.025"	No. 3	No. 11	No. 21	No. 31	No. 43	No. 51	No. 61	No. 71	$8.00
10	1/2	23 Ga.—.025"	No. 3	No. 13	No. 23	No. 33	No. 43	No. 53	No. 63	No. 73	10.00
12	9/16	23 Ga.—.025"	No. 5	No. 15	No. 25	No. 35	No. 45	No. 55	No. 65	No. 75	12.00

POWER BLADES (Order by Numbers Below)

Length in Inches	21 Ga.—.032 x 3/4 For Light Power Mach.			18 Ga.—.049 x 3/4 For Medium Power Mach.			18 Ga.—.049 x 1" For Heavy Power Mach.			16 Ga.—.065 For Extra Heavy Power Mach.			
	Annealed Tool Steel, Soft Steel		List Price per Gross	Heavy Angle Iron, Iron Pipe, Cast Iron	Tool Steel, Hard Metals	List Price per Gross	Soft Steel, Annealed Tool Steel, Brass, Copper	Steel Tubing Tool Steel Light Angle Iron	List Price per Gross	Soft Steel, Large Work	Machinery Steel, Steel Rails	Tool Steel, Angle Iron, Small Work	List Price per Gross
	14 Teeth			10 Teeth	14 Teeth		10 Teeth	14 Teeth		4 Teeth	6 Teeth	10 Teeth	
12	No. 120		$21.36	No. 121	No. 122	$28.92	No. 123	No. 124	$37.92	.....	.....	.....	.....
12	No. 125		17.88	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	No. 126*		17.88	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
14	No. 140		24.36	No. 141	No. 142	33.12	No. 143	No. 144	43.56	No. 146	No. 147	No. 148	$61.32
17	No. 170		29.04	.....	.....	.....	No. 171	No. 172	51.72	No. 174	No. 175	No. 176	71.76
18	.....		.....	.....	.....	.....	.....	.....	.....	.....	No. 185	No. 184	62.04
21	.....		.....	.....	.....	.....	.....	.....	.....	No. 212	No. 213	No. 211	104.64
24	.....		.....	.....	.....	.....	.....	.....	.....	.....	No. 242	No. 244	119.04

* Has 18 teeth. Adapted especially for Thin Sections and Hard Tool Steel.

The above numbers apply to Millers Falls Blades, but the chart is applicable to Universal blades as well. Simply omit the blade number and note length, width, gauge and teeth.

UNIVERSAL HAND HACK SAWS

All Hard (Tungsten)

Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
10	½	025-23	14	$10.00	*Huffy*	½ gross	5 lbs.
12	9/16	025-23	14	12.00	*Hulki*	½ gross	6¼ lbs.
8	7/16	025-23	18	8.00	*Humbl*	½ gross	3½ lbs.
10	½	025-23	18	10.00	*Humid*	½ gross	5 lbs.
12	9/16	025-23	18	12.00	*Humus*	½ gross	6¼ lbs.
8	7/16	025-23	24	8.00	*Hunks*	½ gross	3½ lbs.
10	½	025-23	24	10.00	*Huras*	½ gross	5 lbs.
12	9/16	025-23	24	12.00	*Hurka*	½ gross	6¼ lbs.
8	7/16	025-23	32	8.00	*Hurly*	½ gross	3½ lbs.
10	½	025-23	32	10.00	*Hurra*	½ gross	5 lbs.
12	½	025-23	32	12.00	*Hussa*	½ gross	6½ lbs.

For general all round work. This type is always furnished unless flexible is specified.

The chart on page 85 explains the use of each blade.

UNIVERSAL HAND HACK SAWS

Flexible (Tungsten)

Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
10	½	025–23	14	$10.00	*Huzza*	½ gross	5 lbs.
12	½	025–23	14	12.00	*Hyade*	½ gross	6½ lbs.
8	7/16	025–23	18	8.00	*Hyali*	½ gross	3½ lbs.
10	½	025–23	18	10.00	*Hybod*	½ gross	5 lbs.
12	½	025–23	18	12.00	*Hydag*	½ gross	6½ lbs.
8	7/16	025–23	24	8.00	*Hydot*	½ gross	3½ lbs.
10	½	025–23	24	10.00	*Hyena*	½ gross	5 lbs.
12	½	025–23	24	12.00	*Hygel*	½ gross	6½ lbs.
8	7/16	025–23	32	8.00	*Hygro*	½ gross	3½ lbs.
10	½	025–23	32	10.00	*Hyleg*	½ gross	5 lbs.
12	½	025–23	32	12.00	*Hylot*	½ gross	6½ lbs.

Teeth only are hardened. Adapted especially for cutting pipe, tubing and all thin material.

The chart on page 85 explains the use of each blade.

UNIVERSAL POWER HACK SAWS

All Hard (Tungsten)

Length	Width	Gauge	Teeth	Price per Gross	Code	No. in Box	Weight per Gross
12	5/8	032-21	14	$17.88	*Hymen*	½ gross	10 lbs.
12	5/8	032-21	18	17.88	*Hymno*	½ gross	10 lbs.
12	3/4	032-21	14	21.36	*Hyodo*	½ gross	11½ lbs.
12	3/4	032-21	18	21.36	*Hyoid*	½ gross	11½ lbs.
10	3/4	049-18	10	24.72	*Hyose*	½ gross	15½ lbs.
12	3/4	049-18	10	28.92	*Hypal*	½ gross	17¾ lbs.
12	3/4	049-18	14	28.92	*Hyper*	½ gross	17¾ lbs.
12	1	049-18	10	37.92	*Hypne*	¼ gross	23 lbs.
12	1	049-18	14	37.92	*Hypid*	¼ gross	23 lbs.
14	3/4	049-18	10	33.12	*Hypno*	¼ gross	20 lbs.
14	3/4	049-18	14	33.12	*Hypki*	¼ gross	20 lbs.
14	1	049-18	10	43.56	*Hypob*	¼ gross	23½ lbs.
14	1	049-18	14	43.56	*Hypco*	¼ gross	23½ lbs.
17	1	049-18	14	51.72	*Hyson*	¼ gross	53 lbs.
14	1¼	065-16	4	61.32	*Hpent*	¼ gross	56 lbs.
14	1¼	065-16	8	61.32	*Hpast*	¼ gross	56 lbs.
14	1¼	065-16	10	61.32	*Hpore*	¼ gross	56 lbs.
17	1¼	065-16	4	71.76	*Hpelt*	¼ gross	45 lbs.
17	1¼	065-16	6	71.76	*Hpafa*	¼ gross	45 lbs.
17	1¼	065-16	10	71.76	*Hpalk*	¼ gross	45 lbs.
18	1¼	065-16	6	75.48	*Hpsen*	1/12 gross	58½ lbs.
18	1¼	065-16	10	75.48	*Hpool*	1/12 gross	53½ lbs.
21	1½	065-16	4	104.64	*Hparn*	1/12 gross	72 lbs.
21	1½	065-16	6	104.64	*Hpeck*	1/12 gross	72 lbs.
21	1½	065-16	10	104.64	*Hpove*	1/12 gross	72 lbs.
24	1½	065-16	6	119.04	*Hpost*	1/12 gross	96 lbs.
24	1½	065-16	10	119.04	*Hpezt*	1/12 gross	96 lbs.

14" and 17" power hack saws are ½" less to centers than length given. All other saws are true to lengths stated.

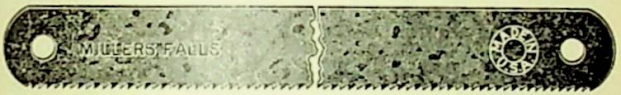
HIGH SPEED HACK SAW BLADES

Furnished in either Millers Falls or Universal brand

Made from high speed steel. Recommended for cutting hard materials such as carbon tool steel, chrome nickel, high speed and alloy steels, monel metal, nichrome and all classes of production work. These blades cut faster and last longer than regular tungsten hack saw blades. They reduce the cutting cost materially.

Hand Blade Specifications

Length	Width	Thickness	Teeth per inch	List per gross
10	9/16	.025	18–24–32	$40.32
12	9/16	.025	18–24–32	48.96



Power Blade Specifications

Length	Width	Thickness	Teeth per inch	List per gross
12	1	.049	–14	$172.80
12	1	.065	6–10	172.80
14	1	.049	–14	201.60
14	1	.065	6–10	201.60
14	1¼	.065	4– 6	252.00
17	1	.049	14	244.80
17	1	.065	6–10	244.80
17	1¼	.065	4– 6	306.00
18	1	.065	–10	259.20
18	1¼	.065	4– 6	324.00
21	1½	.065	4– 6–10	453.60
24	1½	.065	6–10	518.40

For pipe, angle iron and small sections use 14 teeth per inch. For sections 1 in. to 4 in. use 10 teeth per inch. For sections larger than 4 in. use coarser teeth, 8, 6 or 4, depending on size of material to cut.

A high speed steel blade can be run on hard material at a speed of 140 cutting strokes per minute. Use cutting solution and start the blade in the cut with a pressure of about 80 pounds on the saw. (This would be about 40 pounds at the handle which is used for lifting the saw from the work.) As the saw becomes dull, increase the pressure in order to keep up the speed of cutting. A half worn cut blade, with enough pressure, will cut just as fast as a sharp one, thereby keeping down cost per cut.

MILLERS FALLS METAL CUTTING BAND SAWS

"Millers Falls" Band Saws are hardened on the teeth only, leaving the back tough. T prevents the band from cracking or breaking while in operation. While the cutting edges of t teeth are hard enough to cut high speed steel, the base is tough enough to withstand the shock cutting through the thin fins of bronze castings. There are many advantages to be gained by u band saws, such as cutting gates from irregular shaped castings without distorting them, s cutting and many operations of slitting on tool work, etc.

Standard List in Coils of any Length

Width	Gauge	Teeth Per Inch								List Per Ft.	Price Jointing	Pe
3/16	23-.025	..	..	14	16	18	20	24	32	$.09	$.40	
¼	23-.025	..	12	14	16	18	20	24	32	.09	.40	
⅜	23 .025	10	12	14	16	18	20	24	32	.10	.40	
½	23-.025	10	12	14	16	18	20	24	..	.11	.40	
⅝	21-.032	10	12	14	16	18	20	24	..	.14	.50	
¾	21-.032	10	12	14	16	18	20	24	..	.16	.50	
1	21-.032	10	12	14	16	18	20	24	..	.20	.50	

Standard List Cut to Length and Brazed Ready for Use

Lengths Inclusive	Widths and Thicknesses 3/16" x .025"	¼" x .025"	⅜" x .025"	½" x .025"	⅝" x .032"	¾" x .032"	1" x
7′ 6″ to 8′ 5″	$1.12	$1.12	$1.20	$1.28	$1.62	$1.78	$2.
8′ 6″ to 9′ 5″	1.21	1.21	1.30	1.39	1.76	1.94	2.
9′ 6″ to 10′ 5″	1.30	1.30	1.40	1.50	1.90	2.10	2.
10′ 6″ to 11′ 5″	1.39	1.39	1.50	1.61	2.04	2.26	2.
11′ 6″ to 12′ 5″	1.48	1.48	1.60	1.72	2.18	2.42	2.
12′ 6″ to 13′ 5″	1.57	1.57	1.70	1.83	2.32	2.58	3.
13′ 6″ to 14′ 5″	1.66	1.66	1.80	1.94	2.46	2.74	3.
14′ 6″ to 15′ 5″	1.75	1.75	1.90	2.05	2.60	2.90	3.
15′ 6″ to 16′ 5″	1.84	1.84	2.00	2.16	2.74	3.06	3.
16′ 6″ to 17′ 5″	1.93	1.93	2.10	2.27	2.88	3.22	3.
17′ 6″ to 18′ 5″	2.02	2.02	2.20	2.38	3.02	3.38	4.
18′ 6″ to 19′ 5″	2.11	2.11	2.30	2.49	3.16	3.54	4.
19′ 6″ to 20′ 5″	2.20	2.20	2.40	2.60	3.30	3.70	4.
20′ 6″ to 21′ 5″	2.29	2.29	2.50	2.71	3.44	3.86	4.

This list compiled on a basis to include all sizes now in use. This list to be used on all cut-to-length or

When ordering give the following information if possible:
Length of saw if welded.
Material to be usually cut.
Thickness of section to be cut.
Specify number of teeth per inch.
Speed of saw in feet per minute.
Pitch and widths of saw previously used.
If trouble developed describe scroll or straight cutting.

MITRE BOXES

Accuracy and durability are the chief requisites of a mitre box. Other features are of secondary importance.

Since first manufactured, these qualities in Millers Falls Langdon Mitre Boxes have been unquestioned.

Foremost among the styles we make is the Langdon Acme. This box represents the highest type of mitre box efficiency.

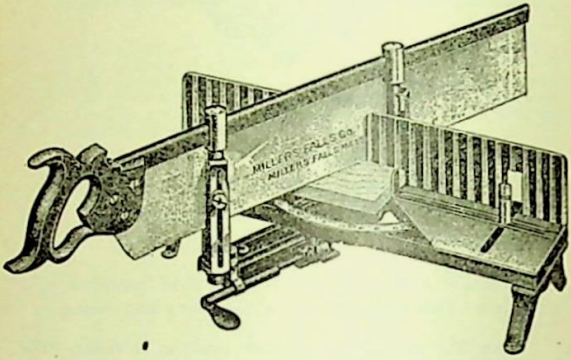
Its distinguishing features are: the extra long saw guide to give stability; automatic catch holding these guides at their highest points; releasing them instantly when desired; guides to support the work against back or for use when angles of more than 45 degrees are desired, and which are easily slid out of the way when not in use; take up to provide for wear on the screw. These and other refinements have made it the favorite mitre box with carpenters everywhere.

A number of different styles are shown in the pages following, each having its particular uses and advantages, and each one made with characteristic Millers Falls thoroughness, both in the selection of material and to every detail of manufacture.

MITRE BOXES

(Langdon Acme)

Nos. 68-75



This is our most improved type of box, and has, in addition to the refinements described on the preceding page the following features.

Thumb lever at front of box by means of which saw supports can be swung freely and locked at either a positive or any intermediate angle.

Graduated arc and index plate to show what degrees to set the saw for certain cuts.

Notched bed plate determines the positive angles most used.

Extension lever for quick acting adjustment on all except size one boxes.

Length and depth gauges.

Steel bottom boards roughened to prevent work from slipping.

Made of iron and steel castings. Main castings are enameled black.

Steel bed plates enameled red. Bright parts nickel plated.

Nos.	Size	Dimensions of Saw Inches	Capacity at Right Angles Inches	Capacity at Mitre Inches	Weight Boxed Pounds	Weight Net Pounds	Code	Price
68	1	22 x 4	7½	5	34	23	*Labor*	[illegible]
69	1	24 x 4	7½	5	35	23½	*Labra*	[illegible]
70	1	26 x 4	7½	5	36	24	*Lacie*	[illegible]
71	2	22 x 4	10¼	7	34	23	*Lacer*	[illegible]
72	2	24 x 4	10¼	7	35	23½	*Ladda*	[illegible]
73	2	26 x 4	10¼	7	36	24	*Ladim*	[illegible]
74	2½	28 x 5	10¼	7	37	25	*Ladle*	[illegible]
75	2½	30 x 5	10¼	7	38	25½	*Lager*	[illegible]

(Above saws are all 11 point.)

BOXES WITHOUT SAWS

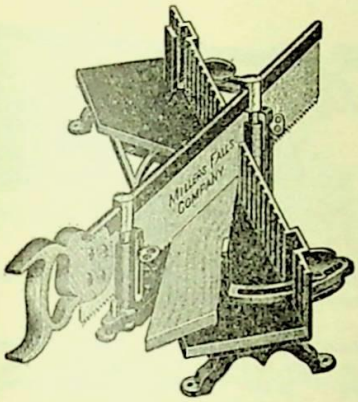
1068	1		7½	5	26	20	*Legry*
1071	2		10¼	7	26	21	*Laird*
1074	2½		10¼	7	27	22	*Lasty*

Boxes are guaranteed accurate only when equipped with saws fitted by ourselves.

MITRE BOXES

(New Langdon Improved)

Nos. 29-32-33-34



While these boxes have not all the refinements of the Langdon Acme, they have every feature essential to a complete mitre box.

Saw supports can be quickly swung and clamped at any angle from 45° to 90° either to the right or to the left. Angles most in use are determined by notches cut into baseplate.

Circular arms permit cutting any angle from 45° to 90°—and also at any angle from 15° to 90°, on 2½ inch stock. Have depth gauge, and gib to support work.

Nos.	Size	Dimensions of Saw Inches	Capacity at Right Angles Inches	Capacity at Mitre Inches	Weight Boxed Pounds	Weight Net Pounds	*Code*	Price
29	1	24 x 4	6¾	4½	28	18	*Lakin*	$18.50
32	2	24 x 4	9⅜	6⅜	29½	20	*Lakke*	20.25
33	2	26 x 4	9⅜	6⅜	30	20½	*Lamel*	21.25
34	2½	28 x 5	9⅜	6⅜	34	22	*Lamia*	23.75

(Above saws are all 11 points.)

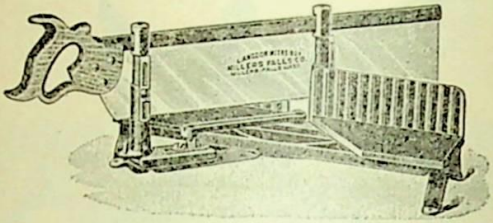
BOXES WITHOUT SAWS

1029	1		6¾	4½	21	13	*Lampi*	$13.25
1032	2		9⅜	6⅜	22½	14½	*Lance*	14.25
1034	2½		9⅜	6⅜	26½	18½	*Lande*	16.80

MITRE BOXES

(New Langdon)

Nos. 17-23-25



These boxes are identical with Nos. 29, 32, 33 and 34 except that they are without the circular arms. Their capacity, therefore is from 45° to 90° only.

Nos.	Size	Dimensions of Saw Inches	Capacity at Right Angles Inches	Capacity at Mitre Inches	Weight Boxed Pounds	Weight Net Pounds	*Code*	Price
17	1	18 x 4	6¾	4½	24	14	*Lapis*	$14
23	2	24 x 4	9⅜	6⅜	27½	16	*Lapse*	18
25	2½	28 x 5	9⅜	6⅜	30½	18	*Larch*	22

(Above saws are all 11 point.)

BOXES WITHOUT SAWS

1017	1	6¾	4½	20½	12½	*Lariz*	$11.40
1023	2	9⅜	6⅜	22	14	*Larne*	12
1025	2½	9⅜	6⅜	26	18	*Larya*	15

Important

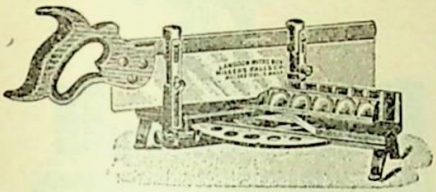
The length of a mitre box saw, commonly called a back saw, is determined by the length of the blade, not the length of the cutting edge. Saws furnished with our boxes are all chipped off rounding at the butt to prevent pricking the thumb when swinging the lever from side to side. This cuts off about 1½ inches of the cutting edge of the saw, but is really no loss, as the part cut off would come directly under the handle, and would be of no particular use.

These saws, therefore, seem to measure nearly two inches shorter than they really are. In measuring your saw be careful to measure the entire length of blade.

MITRE BOXES

(Langdon)

Nos. 15½ and 16½



These are small boxes, easily portable, and are especially adapted to cutting mouldings and other light work.

Saw supports can be quickly swung and clamped at any angle, from 45° to 90° either to the right or to the left. Notches are cut in baseplate at angles most used.

No. 16½ box does not have the slotted elevators shown in illustration.

Nos.	15½	16½
Size	C	B
Dimensions of saw	16 x 2½ in.	16 x 2 in
Capacity at right angles	4½ in.	4½ in.
Capacity at mitre	3 in.	3 in.
Weight, boxed	14 lbs.	11 lbs.
Weight, net	8 lbs.	7 lbs.
Price	$12.50	11.00
Grade	*Latic*	*Lawny*

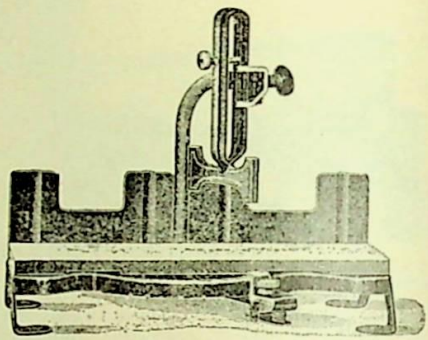
(Above saws are 12 points.)

Prices of boxes without saws: size C, $7.50; size B, $6.80.

MITRE BOX

No. 110

New Tool



This new Millers Falls mitre box of the open front type is built to meet a popular demand for a practical box at a low price. It is made entirely of steel, is decidedly simple in design, has but few parts and adjustments are quickly made. Can be used with either back or panel saw.

Specifications

Frame and legs one piece.
Saw guide adjustable for any size saw with device for squaring with bases and back.
Swivel arm notched for all positive angles.
Clamping device for intermediate angles.
Roll to prevent saw from marring bottom board.
Frame japanned black. Saw guide enameled red. Nickeled trimmings.
Weight, 9 pounds.
Price (without saw) $6.70.

Code—Lesta

Packed one in a wooden box.

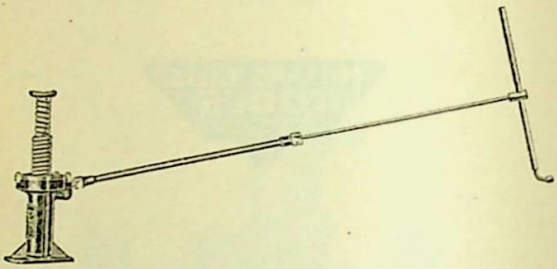
AUTO TOOLS

Since the issuance of our last catalog there have been a number of improvements and also additions to our auto jack line. We are now offering to the trade a complete range of balloon tire jacks, which include Nos. 130, 115, and 135 and which we believe covers a range broad enough to take care of all requirements.

There have been improvements on our truck jacks which greatly strengthen them, adding considerably to their life. Rigid construction, combined with practical design characterize all the tools shown in this line. They can be depended upon to give lasting service and satisfaction.

BALLOON TIRE JACK

No. 130



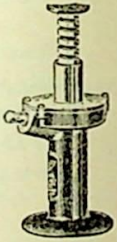
This jack of the double lift type meets the requirements demanded by balloon tires—low initial height and maximum lift. Its lifting range cares for every size of tire and the low minimum height permits use under any axle which is not less than 6¾" from the ground when tire is deflated.

A distinguishing feature is the fact that both screws operate in unison *and the point of operation remains stationary at all times.* This is a distinct advantage over jacks in which the screws operate independently and where the handle raises with the jack.

No. 130 is of the simplest possible design and because of its simplicity is unusually strong and sturdy. Its broad base insures a solid footing on all surfaces and is of sufficient size to avoid wobbling. It is safe, dependable and convenient under every road condition.

Specifications

Steel Screws.
Housing and gears of malleable iron.
All working parts enclosed—dirt proof.
Handle of steel tubing with steel telescopic rod, extensible to 36 inches.
Quick acting locking pin on handle.
Black enameled base.
Minimum height 6¾ inches.
Maximum height 17 inches.
Maximum lift 10¼ inches.
Weight with handle 10½ lbs.
Diameter of base 5 inches.
Diameter of inner screw 1⅛ inches.
Diameter of outer screw 1¾ inches.
Capacity 2 ton.
List price, $7.00

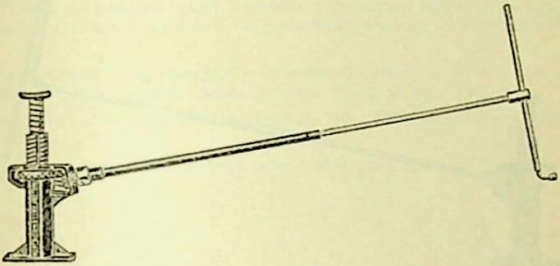


Code— Nacor

Packed one in a carton, twelve in a case.

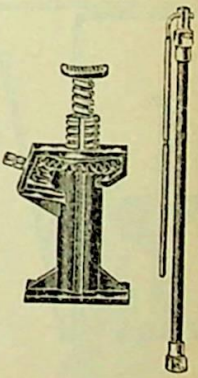
BALLOON TIRE JACK

No. 115



This new Balloon Tire Jack of one and a half ton capacity is similar to our No. 130 excepting gears are not enclosed. Both screws operate in unison and the point of operation remains stationary at all times. A desirable feature is the handle which is extensible up to 36 inches

Specifications



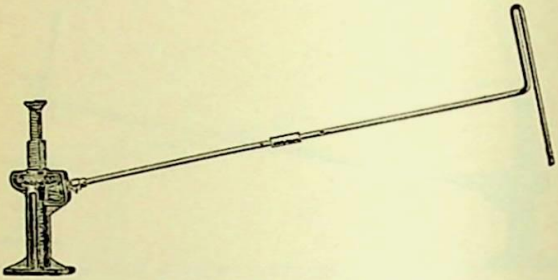
Steel Screws.
Handle extensible up to 36 inches.
Black enameled base.
Minimum height 7⅜ inches.
Maximum height 16¾ inches.
Maximum lift 9⅜ inches.
Capacity 1½ ton.
Weight with handle 9½ lbs.
Dimension of base 4¾ x 3½ inches.
Diameter of inner screw 1 inch.
Diameter of outer screw 1½ inches.
List price, each, $5.00.

Code—Natty

Packed twelve in a case.

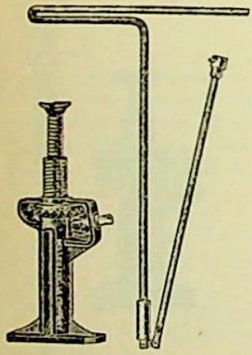
BALLOON TIRE JACK

No. 135



This is a double lift Balloon Tire Jack, in which both screws operate in unison and the point of operation remains stationary at all times.

Angle on pinion shaft has been made 10° so that the handle will clear the lowest bumpers or tire racks.



Specifications

Minimum height 7 inches.
Maximum height 16¼ inches.
Maximum left 9¼ inches.
Diameter of inner screw ¾ inch.
Diameter of outer screw 1 3–16 inch.
Dimensions of base, 3¼ x 4¾ inches.
Weight, with handle, 7½ pounds.
Folding all steel handle extending to 36 inches.
Length of handle folded, 18 inches.
Painted black with red saddle type cap.
All parts of steel.
All castings of malleable iron.
Capacity 1 ton.
Price each, $3.00.

Code— Noppy

Packed 12 in a case.

AUTO JACK

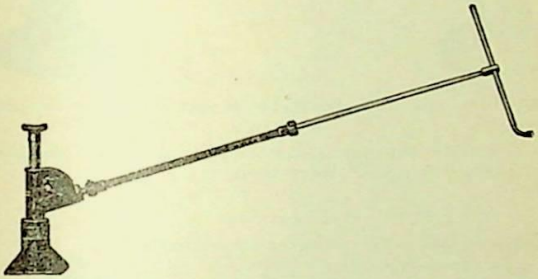
No. 145

Ease of operation, convenience and dependability characterize No. 145 Auto Jack. It can be placed under car, operated, and removed without stooping, reaching under car, or soiling hands or clothes.

A feature not found in any other jack is the quick adjusting device, by which the screw can be lifted to its full height, or instantly released, by simply lifting the worm gear.

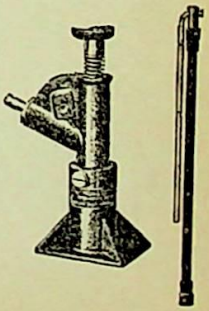
Another distinguishing feature is the adjustable base, which permits three ranges of height before screw is raised.

It can be depended upon to lift to its full capacity easily, quickly and under all road conditions.



Specifications

Ball bearing end thrust. All working parts of steel. Base grey iron, checked on bottom. Barrel, malleable iron. Cap, saddle shaped, corrugated top. Cap and screw of one piece forged steel, practically unbreakable, cannot be screwed out of barrel. Handle of steel tubing, with steel telescopic rod, extensible to 36 inches. Quick acting locking pin on handle.



Handsomely finished a lustrous black overall, except thin red stripe around base.

Minimum height, 9½ in. Maximum height, 18 in.

Capacity, 2 tons. Weight (with handle), 10½ lbs. Price, $5.00

Code—Nadir

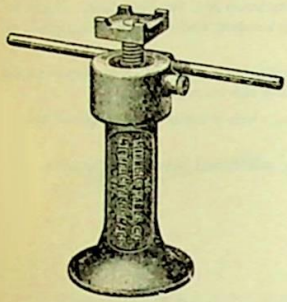
Auxiliary base (4 in. x 6 in.) for use on very soft ground $ .50

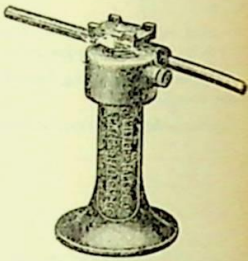
Code—Nabit

Packed one in a carton, twelve in a case.

RATCHET TRUCK JACKS

Nos. 160–165





In designing this truck jack we have profited by 20 years' experience in the building of jacks for lifting purposes.

It is built for rough hard usage—is simple in construction, has the fewest possible working parts and designed to operate easily under all road conditions.

Special features

Ball-bearings set in upper section prevent any chance of binding.
All working parts enclosed—positively dirt proof.
Permanently lubricated when assembled. No loss in self contained housing. Therefore no need for further lubrication.
Special type cap fits any shape axle.
Positive ratchet action—reversed by turning pawl knob.
Improved locking device holds entire assembly intact.
Extra large base prevents any chance of overturning even at the maximum height.
Steel lifting screw, ball bearings and lever. Other parts, cast iron.
Enameled black overall.

Specifications

	No. 160	No. 165
Minimum height	12 inch	10¼ inch
Maximum height	19¾ inch	17⅝ inch
Maximum lift	7¾ in.	6¾ inch
Estimated capacity	15 ton	7½ ton
Diameter of lift screw	1¾ inch	1⅜ inch
Diameter of base	7 inch	6¼ inch
Weight with lever	30 lbs.	19⅜ lbs.
Price each	$12.00	$10.00
Code	*Naris*	*Name*

No. 160 packed twelve in a case.

No. 165 packed eighteen in a case.

BEARING SCRAPER

No. 240

A new bearing scraper distinguished from the common type in having two working ends; one with the regular taper point, the other squared to allow flat scraping. It is therefore two tools in one.

Edges are ground concave with proper clearance for free easy cutting. Can be easily resharpened.

Another feature of superiority is that it is made of special alloy TUNGSTEN steel hardened and tempered by experts with years of experience in the use of this steel.

Handle is of hard rubber, practically unbreakable. Shape permits a firm, easy grip, and perfect balance.

Length overall, 12¾ in. Length of cutting edges, 2¼ in.

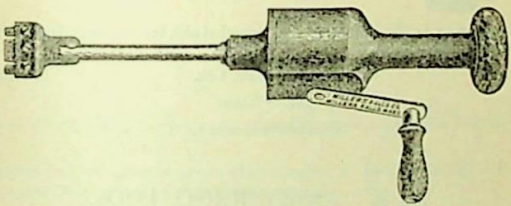
Weight, each, 6 oz. Price each, $1.05

Code—Nasus

Packed one in a box.

VALVE GRINDER

No. 238



An improved tool which simplifies the grinding of automobile valves. Forward turns of the crank cause grinding head to reciprocate and make one complete revolution to ten turns of the crank. Ball bearings insure free action and increase its power.

Universal in its use as spanner points are adjustable and the flat blade is used for slotted valve heads.

Steel gears and crank handle, iron frame enameled black. Head of stained hardwood, shaped to give firm, comfortable grip.

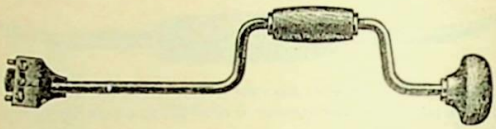
Length overall, 13⅜ inches. Length of spindle, 5¾ inches.

Weight each, 2 lbs. 7 oz. *Code—Natal* Price each, $3.40

Packed one in a box.

VALVE GRINDERS

No. 235



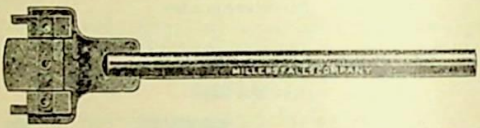
This valve grinder is of the popular brace type. It is equipped with a universal working head, having an adjustable spanner and flat blade, to fulfill the requirements of different types of valve heads. The working head is attached to the sweep so that there is a slight play in all lateral directions. This decreases the chance of the spanner or blade slipping out of engagement with the spanner holes or slot in the valve head.

Head and handle stained hardwood, free acting, secured by metal bearings. Steel rod, polished. Sweep, 4 inch radius. Length below sweep, 6½ inches. Length overall, 15 inches.

Weight each, 13 oz. *Code—Natch* Price each, $ .75

Packed six in a box.

No. 237



This tool is the same as No. 235 except has round shank for use with bit brace or hand drill instead of a complete brace sweep.

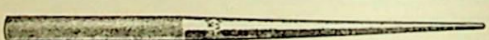
Shank ⅜ x 4 in. Weight each, 4 oz. Price each, $ .50

Code—Natka

Packed six in a box.

"O K" ASSEMBLING TOOL

No. 2



This tool is especially useful in automobile repairing and assembling, being used to line up holes through which pins, bolts, screws, etc., are to be placed.

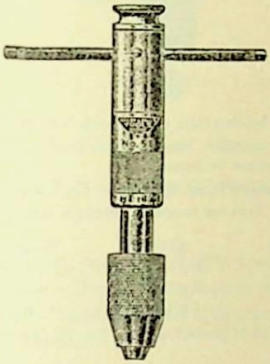
Made of tool steel, spring tempered. Handle, heavily knurled. Taper polished.

Body	Point	Length	Weight, each	Price each	*Code*
½ in.	3–16 in.	10 in.	6 oz.	$ .55	*Needy*

Packed six in a box.

RATCHET TAP WRENCH

No. 58



An efficient tool for working in close quarters and in places inaccessible with an ordinary Tap Wrench.

Ratchet operates by means of cam in rear of shifter sleeve. Ratchets to right or left by turning shifter ring. In center is solid for use without ratchet.

Handle is held firmly in position by set screw. Knob at top affords a means of steadying the Wrench while starting the tap.

Ratchet and pawls of tool steel. Steel jaws hardened and tempered. Case hardened sleeve.

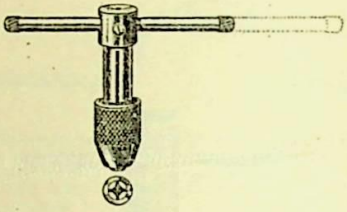
Length of handle, 3½ in.	Length overall, 4¾ in.	Capacity up to ¼ in. Taps.
Polished overall.	Weight each, 7 oz.	Price each, $1.90

Code—Necto

Packed two in a box

TAP WRENCHES

Nos. 10–12



This tool is designed for holding taps, reamers, small drills, or other small tools.

It is superior to similar wrenches, because of its slide handle, which permits its use in many places where a rigid handle cannot be turned.

For ordinary work handle can be set rigid by means of a set screw.

Chuck shell is knurled. Jaws are tempered, sleeve is case hardened. Centers accurately.

Nos.	Length of Handle	Capacity	Weight each	Price each	*Code*
10	3¼ in.	Up to ¼ in.	2 oz.	$ .60	*Navel*
11	4¾ in.	Up to ⅜ in.	4 oz.	.75	*Navew*
12	5¼ in.	Up to ½ in.	8 oz.	1 10	*Navie*

Nos. 10 and 11 packed six, and No. 12, two in a box.

Set No. 112

Contains one each Nos. 10, 11 and 12 Tap Wrenches packed in a box.

Weight per set, 18 oz. *Code—Navy* Price per set, $2.50

NAIL SETS AND PUNCHES

The accuracy, strength, and durability of these tools is the result of the care used in the selection of the steel from which they are made, the exacting processes of hardening and tempering, and the thorough inspection given to each tool.

The fact that our nail sets are machined enables us to produce *perfect* cups and points, an advantage over the average nail set cup which is slightly elliptical and therefore liable to chip off on one side. Also all our points are made over size with a bevel down to the point. For these reasons we claim to have the strongest and most accurate point of any nail set made.

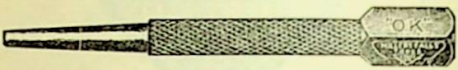
The centers of the nail sets and punches are heavily knurled and afford a firm grip; the heads and points are machine finished and therefore absolutely accurate and true.

They can be depended upon to give satisfaction.

NAIL SETS

Square Head

Nos. 451–455



The advantages of this type of head are many. Because of the larger striking surface the head will wear longer before it is rounded over. There is less chance of striking the set on an angle and therefore less sting on the fingers. It will not roll on an inclined surface. When carried in the pocket with other small tools it is easily picked out without removing the others.

Its convenience and durability will be appreciated by every carpenter and mechanic.

Nos.	Body	Length	Points	Weight per dozen	Price per dozen	*Code*
451	5/16 in.	4 in.	1/32 in.	17 oz.	$1.75	*Macaw*
452	5/16 in.	4 in.	2/32 in.	17 oz.	1.75	*Macer*
453	5/16 in.	4 in.	3/32 in.	17 oz.	1.75	*Macko*
454	5/16 in.	4 in.	4/32 in.	17 oz.	1.75	*Macor*
455	5/16 in.	4 in.	5/32 in.	17 oz.	1.75	*Macta*
4501	One dozen assorted as listed below			17 oz.	1.75	*Macly*

Packed one dozen of a size, or assorted, in a box.

Unless otherwise specified, the following assortment will be furnished: two each 1/32 and 4/32 inch; four each 2/32 and 3/32 inch.

"O. K." NAIL SETS

No. 310

Made in both bright and blued finish. Blued furnished, unless bright is specified.

Body	Length	Points	Weight per dozen	Prices per dozen	*Code*
9/32	4 in.	1/32 in.	13 oz.	$1.40	*Magic*
5/16	4 in.	2/32 in.	13 oz.	1.40	*Magna*
5/16	4 in.	3/32 in.	13 oz.	1.40	*Magot*
5/16	4 in.	4/32 in.	13 oz.	1.40	*Magus*
5/16	4 in.	5/32 in.	13 oz.	1.40	*Mahol*

Packed one dozen of a size, or assorted in a box.

Unless otherwise specified, the following assortment will be furnished: Two each 1/32 and 4/32 inch; four each 2/32 and 3/32 inch.

"O. K." NAIL SETS

Display Sets

No. 324

This set contains twenty-four assorted No. 310 Nail Sets. Boxes are of hardwood, covered with paper.

Weight, per set, 1 lb., 10 oz.

Price, per set, $3.05

Code—Maian

No. 312

This set contains twelve assorted sizes No. 310 Nail Sets. Box and cover of hardwood, nicely polished.

Weight, per set, 1 lb. Price, per set $1.60

Code—Maine

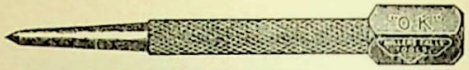
Large Nail or Spike Sets

Nos.	Body	Length	Points	Weight per dozen	Price per dozen	Code
338	3/8 in.	5 in.	2, 3, 4, 5, 6/32 in.	1½ lbs.	$2.20	*Maize*
339	7/16 in.	5 in.	¼ in.	2¼ lbs.	2.75	*Major*
340	½ in.	5 in.	5/16 in.	2¾ lbs.	3.25	*Majun*
341	Assorted			1¾ lbs.	2.75	*Malac*

Packed one dozen in a box.

CENTER PUNCHES

Square Head No. 460



Bright Finish. Body 5/16 inch diameter. Head ⅜ inch square. Length overall, 4 inches.
Weight per dozen, 17 oz. Price per dozen, $1.75

Code—Malta

Packed one dozen in a box.

"O. K." Nos. 140-146

Shank and Head Polished.

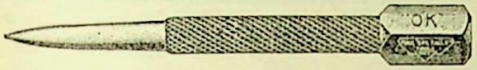
Nos.	Body	Length	Weight per dozen	Price per dozen	*Code*
140	9/32 in.	4 in.	¾ lb.	$1.35	*Malum*
141	5/16 in.	4 in.	¾ lb.	1.35	*Malma*
142	⅜ in.	4 in.	1¼ lbs.	1.75	*Manch*
143	⅜ in.	5 in.	1½ lbs.	2.10	*Mango*
144	7/16 in.	4 in.	1¾ lbs.	2.10	*Mania*
145	½ in.	4 in.	2¼ lbs.	2.40	*Manks*
146	½ in.	5 in.	2½ lbs.	2.80	*Manse*

Packed one dozen in a box.

Nos.	Assortment	Weight per dozen	Price per dozen	*Code*
1401	6 each 9/32 and 5/16 in.	¾ lb.	$1.35	*Manul*
1402	4 each ⅜, 7/16 and ½ x 4 inch.	1 lb.	2.10	*Manay*

PRICK PUNCHES

Square Head No. 470



Bright Finish. Body 5/16 inch diameter. Head ⅜ inch square. Length overall, 4 inches.

Weight per dozen, 17 oz. Price per dozen, $1.75

Code—Mares

Packed one dozen in a box.

"O. K." Nos. 166–169

Point and head polished.

Nos.	Body	Length	Weight per dozen	Price per dozen	*Code*
166	9/32 in.	4 in.	¾ lb.	$1.65	*Marie*
167	5/16 in.	4 in.	¾ lb.	1.65	*Marry*
168	⅜ in.	4 in.	1¼ lbs.	2.00	*Marsh*
169	⅜ in.	5 in.	1½ lbs.	2.50	*Marta*

Packed one dozen in a box.

"O. K." SOLID DRIVE PUNCHES

Nos. 180–186

Point and head polished.

Nos.	Body	Length	Points	Weight per dozen	Code	Price per dozen
180	5/32 in.	4 in.	1/16 in.	3/4 lbs.	*Media*	$1.35
181	3/16 in.	4 in.	5/32 in.	1 1/4 lbs.	*Medle*	1.60
182	3/16 in.	5 in.	3/32 in.	1 1/2 lbs.	*Medoc*	2.00
183	7/32 in.	4 in.	1/4 in.	1 3/4 lbs.	*Meech*	2.00
184	7/32 in.	5 in.	1/4 in.	2 lbs.	*Meiny*	2.40
185	1/4 in.	4 in.	5/32 in.	2 1/4 lbs.	*Melee*	2.50
186	1/2 in.	5 in.	5/32 in.	2 3/4 lbs.	*Melio*	2.70

Packed one dozen in a box.

Nos.	Assortment	Weight	Code	Price per dozen
1800	3 each of the 4 in. lengths	1 3/4 lbs.	*Melon*	$2.00
1801	4 each of the 5 in. lengths	2 1/4 lbs.	*Menge*	2.40

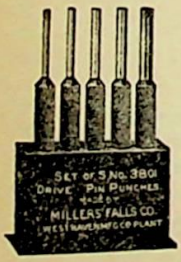
"O. K." DRIVE PIN PUNCHES

Nos. 380–384

Point and head polished.

Nos	Body	Length	Points	Weight per dozen	Code	Price per dozen
380	5/32 in.	4 in.	1/16 in.	3/4 lbs.	*Merge*	$1.55
381	5/32 in.	4 in.	5/32 in.	1 lbs.	*Merit*	1.55
382	3/16 in.	4 in.	3/32 in.	1 1/4 lbs.	*Merke*	1.55
383	3/16 in.	4 in.	1/32 in.	1 1/4 lbs.	*Mesad*	1.55
384	3/16 in.	4 in.	1/4 in.	1 1/4 lbs.	*Meson*	1.55

Packed one dozen in a box.



DISPLAY SET

No. 3801

Contains five punches, one each of Nos. 380-384. Boxes of hardwood, covered with red paper.

Weight per set, 1/2 lb. Price per set, $ .70

Code—Mesua

"O. K." DRIVE PIN PUNCHES

Nos. 480–483

Point and head polished.

Nos.	Body	Length	Points	Weight per dozen	*Code*	Price per dozen
480	½ in.	6 in.	5/16 in.	2½ lbs.	*Metal*	$3.35
481	½ in.	6 in.	¼ in.	2¾ lbs.	*Meter*	3.35
482	½ in.	6 in.	7/32 in.	2¾ lbs.	*Metic*	3.35
483	½ in.	6 in.	⅜ in.	3¼ lbs.	*Miaul*	3.35

Packed one dozen in a box.

DISPLAY SETS

No. 4800

Contains three each of Nos. 480–483, packed in hardwood box, covered with red paper. Same style box as No. 385, page 116.

Weight each 3 lbs. Price each, $3.50

Code—Miask

No. 4801

Contains one each Nos. 480–483, packed in pasteboard box.

Weight each 1 lb. Price each, $1.05

Code—Micro

Nos. 490–493

Point and head polished.

Nos.	Body	Length	Points	Weight per dozen	*Code*	Price per do
490	½ in.	9 in.	5/16 in.	3¼ lbs.	*Midge*	$4.75
491	½ in.	9 in.	¼ in.	3¾ lbs.	*Midst*	4.75
492	½ in.	9 in.	7/32 in.	4 lbs.	*Miles*	4.75
493	½ in.	9 in.	⅜ in.	5½ lbs.	*Milky*	4.75
4900	Three each of above punches			4 lbs.	*Mince*	4.75

Packed one dozen in a box.

Set No. 4901

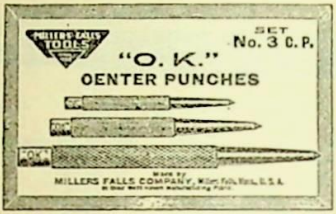
Contains one each Nos. 490–493 punches, packed in a box.

Weight per set, 1½ lbs. Price per set, $1.65

Code—Miner

CENTER PUNCH SET

No. 3 C. P.



Three "O.K." tool makers' center punches mounted on an attractive display card. Set contains one each of the following sizes:

Body	Length
5/32 in.	2 1/4 in.
1/4 in.	2 3/4 in.
5/32 in.	4 in.

Weight per set, 1 oz. *Code—Minow* Price per set, $ .35

Packed six sets in a box.

"O. K." LIGHT DRIVE PIN PUNCHES

Set No. 36

Three "O.K." Light Pin Punches mounted on an attractive display card. Set contains one each of following sizes:

Body	Length	Points
3/16 in.	2 1/4 in.	1/16 in.
5/16 in.	2 3/8 in.	1/64 in.
3/16 in.	2 1/2 in.	1/32 in.

Weight per set, 1 oz.

Price per set, $ .40

Code—Mirza

Packed six sets in a box.

Set No. 37

These are the same style of punches as those in No. 36 set, but are larger. Set contains one each of following sizes:

Body	Length	Points
1/4 in.	2 3/4 in.	1/32 in.
1/4 in.	2 7/8 in.	1/64 in.
1/4 in.	3 in.	1/16 in.

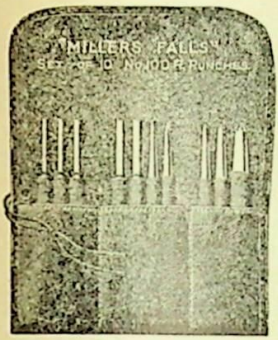
Weight per set, 1 oz.

Price per set $ .50

Code—Miser

Packed six sets in a box.

SETS OF PUNCHES



No. 100 R

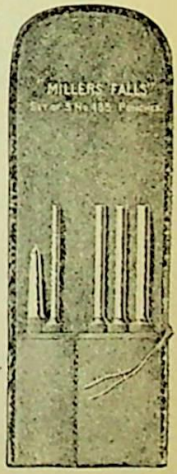
Ten assorted four-inch Punches, packed in a neat canvas roll. Set comprises the following:

One each Pin Punches No. 380 series.
One Drive Pin Punch No. 180.
One Prick Punch No. 166.
One each Center Punches Nos. 140, 142 and 145.

Weight per set, 14 oz. Price per set, $1.65

Code—Mized

Packed six sets in a box.



No. 485

Five assorted Punches of the following numbers, packed in canvas roll:

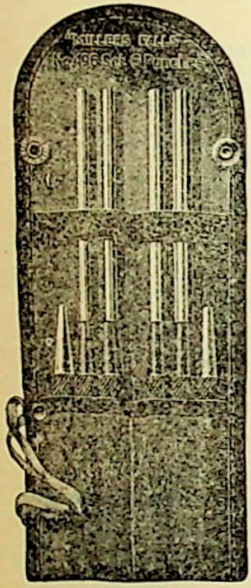
One Center Punch No. 143.
One each Drive Pin Punch No. 480 series.

Weight per set, 17 oz. Price per set, $1.60

Code—Mixog

Packed six sets in a box.

SETS OF PUNCHES



No. 496

Six assorted Punches, in canvas roll. Set comprises four 9 inch and two 4 inch of the following numbers:

One each Drive Pin Punches No. 490 series.

One each Solid Drive Punches Nos. 181 and 185.

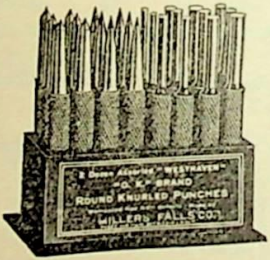
Weight per set, 1⅝ lbs.

Price per set, $2.60

Code—Moano

Packed six sets in a box.

No. 385



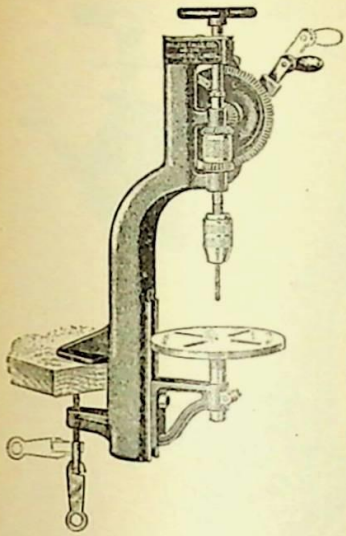
Twenty-four assorted 4 inch Punches, packed in a strong hardwood box for counter display. Assortment comprises the following numbers:

Six Center Punches No. 142.
Six Prick Punches No. 168.
Two Solid Drive Punches No. 181.
Two each Drive Pin Punches No. 380 series.

Weight per set, 2¼ lbs.

Code—Mobby

Price per set, $3.60



BENCH DRILL

No. 216

The distinguishing feature of this Bench Drill is the feed construction. Two rates of automatic feed positive in action are insurance against drills breaking when about to go through the work, or when used on thin material. Also it gives the operator free use of one hand to hold the work. Drill can be fed by hand if desired, by means of feed wheel conveniently located at top.

Three frame bearings hold the drill spindle and feed screw making it unusually strong and rigid.

Specifications

Two speeds, ratios even and 3¼ to 1. Instantly changed by turning knurled sleeve.
Cut gears. Pinions of steel. Ball thrust bearings.
Crank handle extensible, 3 to 6½ inch radius.
Chuck—three jaw, improved protected springs. Capacity 0 to ½ inch round shanks.
Table 7½ inch in diameter slotted to receive vise clamps or posts to hold work in place.
Steel feed screw, spindle and chuck. Cast iron frame, large gear and table.
Chuck and knurled sleeve nickeled. Frame enameled black. Large gear enameled red.
Other machined parts polished. Traverse of automatic feed 2⅛ inches.
Distance from table to chuck 8 inches. Vertical adjustment of table bracket 5¾ inches.
Vertical adjustment of table in its bracket 2½ inches.
Height above bench 22 inches. Height overall 28 inches.
Weight boxed 50 lbs., net 30 lbs. *Code Defro* Price each, $23.75

Packed one in a wooden box.

(This drill can be equipped for power use by means of extra length large gear shaft to accommodate 4 in. x 2 in. pulley. Special price upon request.)

BENCH DRILL

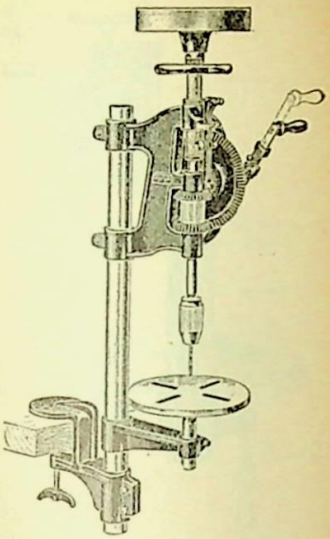
No. 218

This is the same drill as No. 216 with the addition of the wall clamp illustrated at right. This clamp securely grips the main frame and is fastened with screws to a wall or post.

Weight boxed 56 lbs. Net 36 lbs. Price each, $26.50

Code—Defty

Packed one in a wooden box.



BENCH DRILL

No. 226

An improved type of Hand Power Bench Drill. Featured by quick return of spindle to starting point. Has large balance wheel. Better table adjustments. Bench Drill Vise, No. 217 (page 123) can be used on this Bench Drill.

Specifications

Two speeds—rations even and 3 to 1. Has 1 and 2 notch feed.
Cut gears. Pinions of steel. Ball thrust bearings.
Crank Handle extensible; 3 to 6½ inches.
Chuck—3-jaw improved protected springs. Capacity 0 to ½ inch round shanks.
Table—7½ inches in diameter, slotted to receive vise clamps or posts to hold work in place.
Distance between inside of column to center of table, 5 inches. Has swing of 10 inches.
Spindle of steel, and fed up and down by cast threaded quill. Featured by quick return of spindle to starting point. Has large balance wheel.
Standard of steel tubing. Frame table and bench clamp of cast iron.
Chuck and knurled sleeve nickeled. Frame enameled black. Large gear enameled red.
Traverse of automatic feed, 2⅜ inches.
Distance from table to chuck, 9½ inches.
Vertical adjustment of bracket, 7 inches.
Vertical adjustment of table in its bracket, 2½ inches.
Height above bench, 31 inches. Height overall, 36 inches.

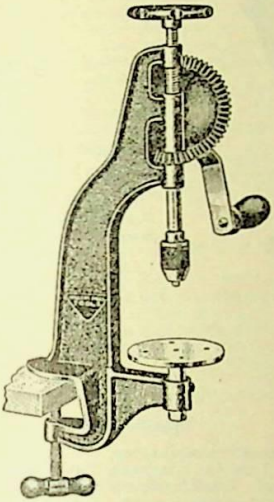
Weight boxed, 63 lbs. Net, 40 lbs. Price each, $30.65

Code—Dedoc

Packed one in a wooden box.

BENCH DRILL

No. 207



This drill is built along simple lines, and is an ideal tool for light work. It is neat, clean cut and thoroughly well made.

Specifications

Feed—hand wheel at top of frame. One speed, ratio 3 to 1.

Chuck—three jaw. Improved protected springs. Capacity 0–¼ inch round shanks.

Cut gears. Steel pinion.

Frame—cast iron enameled black.

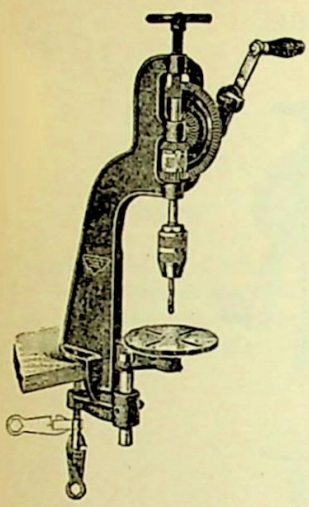
Feed wheel and large gear enameled red.

Chuck, nickeled. Maximum distance from chuck to table 4½ inches.

Height overall, 18 inches. Weight 8½ lbs. net, 13 lbs. gross. Price, $8.00

Code—Deluz

Packed one in a wooden box.



BENCH DRILL

No. 210

A bench drill with hand feed is adequate, unless there is a large amount of drilling to be done.

No. 210 is a rigid, strongly built and accurate drill. It is thoroughly efficient and an exceptional value for the price.

Specifications

Feed. Hand wheel conveniently located at top.
Two speeds, ratios 1½ to 1 and 4 to 1, instantly changed by turning knurled sleeve.
Cut gears. Pinions of steel. Crank handle extensible, 3 to 6 inch radius.
Chuck—three jaw, improved protected springs. Capacity 0 to ½ inch round shanks.
Steel feed screw, spindle and chuck.
Cast iron frame, large gear and table. Chuck and knurled sleeve nickeled.
Large gear enameled red. Frame enameled black.
Table and other machined parts polished.
Maximum distance from chuck to table 9 inches.
Height overall 24 inches. Weight boxed 27½ lbs., net 22 lbs. Price each, $15.00

Code—Deism

Packed one in a wooden box.

(This drill can be equipped for power use by means of extra length large gear shaft to accommodate a 4 in. x 2 in. pulley. Special price upon request.)

No. 211

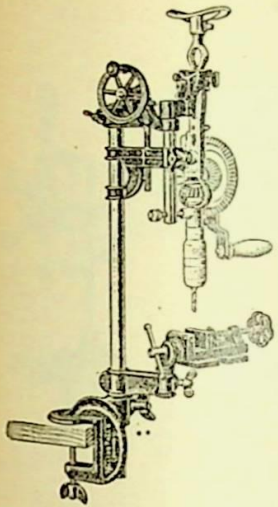
The same as No. 210 with addition of Post or Wall Clamp illustrated.
Weight boxed, 31½ lbs.
Price complete, $16.35
Code—Delan
Packed one in a wooden box.

No. 213

The same as No. 210 with addition of Vise No. 219 (Page 123)
Weight boxed, 31½ lbs.
Price complete, $17.55
Code—Delfi
Packed one in a wooden box.

No. 214

The same as No. 210 with both Post or Wall Clamp and Vise No. 219 (Page 123)
Weight boxed, 35½ lbs. *Code—Delta* Price complete, $19.00
Packed one in a wooden box.



BENCH DRILL

No. 20

This tool is of particular value when the use of a bench drill is secondary to that of a breast drill. With this standard, breast drills (see note below) can be made to serve a double purpose.

The drill is easy to attach, can be swiveled into many positions and clamped at varying heights either above or below the bench.

The vise is swung on a pin off center, and can be used in any position, or at any angle with the frame, vertical to horizontal, or completely reversed and the table turned uppermost.

It is thoroughly practical and makes an efficient bench drill. Note—Can be used with the following Millers Falls breast drills Nos. 10, 12, 12A, 15, 87, 97, 99, 100, 200 and 2100.

Specifications

Feed. Governed by hand wheel, conveniently located at top.
Rapid action. Steel feed gears and post.
Post and machined parts polished.
Other metal parts japanned.
Height of standard 24 inches.
Weight boxed, 28 lbs., net, 19 lbs.
Price without breast drill, $10.65.
Code—Demur
Packed one in a wooden box.

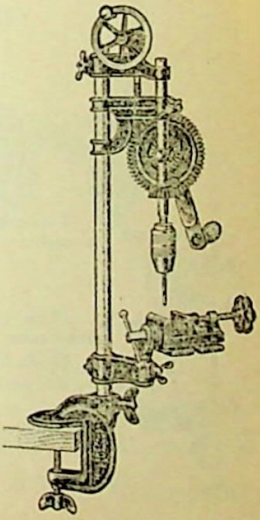
BENCH DRILL

No. 21

This drill is the same as No. 20, except it is built with drilling attachment permanently affixed. It is a complete tool in itself. This construction permits several features not possible in No. 20.

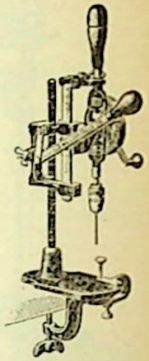
Specifications

Feed same as No. 20. Speeds—two. Ratios even and 3 to 1.
Chuck—three jaw, improved protected springs.
Capacity 0–½ inch round shanks.
Extensible crank handle, radius from 5 to 6½ inches.
Ball thrust bearing. Cut gears. Steel pinion.
Chuck, spindle and crank nickeled.
Other parts finished same as No. 20.
Weight boxed, 30 lbs., net 21 lbs. Price complete, $15.00
Code—Demye
Packed one in a wooden box.



BENCH DRILL

No. 22



The purpose of this tool is to convert a hand drill into a small bench drill for wood or metal drilling. The hand drill is easily inserted and firmly held by an adjustable clamp. Drill can be fed as rapidly or as slowly as desired by means of sensitive compound lever. It is well made and makes a convenient and effective tool.

Holds the following Millers Falls' hand drills: Nos. 1, 2, 2B, 5, 05, 3 and 303.

Will hold No. 980 and No. 1980 by using special clamp costing 15c. each.

Specifications

Height of standard above bench 15½ inches.
Grey iron frame, enameled black.
Steel standard.
Steel lever—polished.

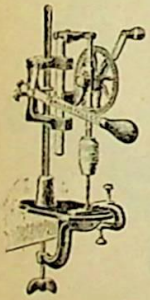
Weight 8 lbs. Price without drill, $4.60

Code—Dentl

Packed one in a box.

BENCH DRILL

No. 23



The same drill as No. 22 except has drilling attachment built in, making a complete tool in itself.

Specifications

Chuck—three jaw, improved protected springs. Capacity 0–⅜ round shank drills.

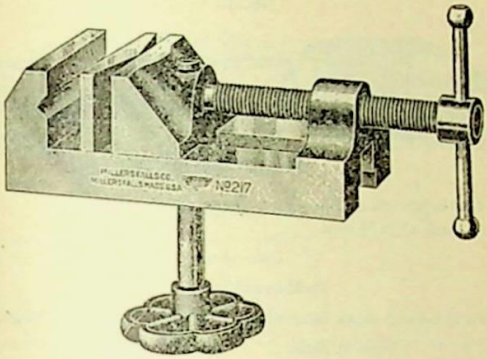
Chuck, drill spindle and crank nickeled.

All other metal parts japanned.

Weight 9 lbs. *Code—Denit* Price, $8.35

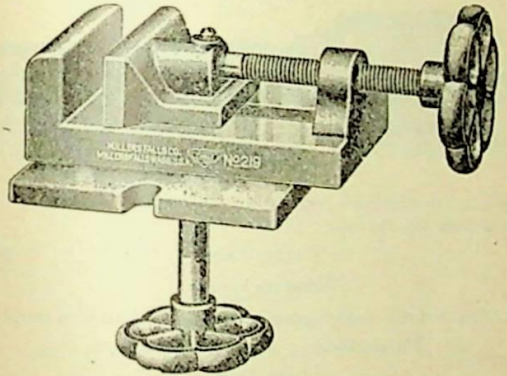
Packed one in a box.

BENCH DRILL VISE
No. 217



For use with drills Nos. 210, 211, 216 and 218. Clamps to table of drill. Detachable swivel jaw holds irregular shapes. Steel screw. Jaws, base, sides and bearing parts accurately machined. Vise opens 2⅝ inches. Without swivel jaw opens 3 inches. Width of jaws 2⅜ inches. Weight 4¾ lbs. *Code—Deign* Price each, $3.35

BENCH DRILL VISE
No. 219



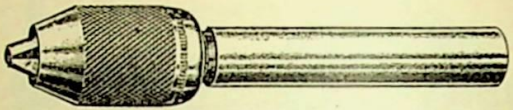
For use with Bench Drill No. 210. Similar to No. 217 Vise, but is without swivel jaw and not as highly finished.

Width of jaws 2¼ inches. Jaw open 1⅝ inch.

Weight 4 lbs. *Code—Degna* Price each, $2.70

CHUCKS

No. 4



Specifications

Capacity 0–3/16 inch round shanks. Outside diameter 1 inch.
Dimensions of shank 2½ x ½ inch.

Weight, 6 oz. *Code—Eager* Price, $1.50

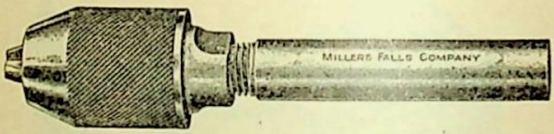
Packed one in a box.

(Furnished with shank flattened for set screw without extra charge.)

Without Shank Price, $ .95

Code—Eared

No. 5



Specifications

Capacity 0–¼ inch round shanks. Outside diameter 1 inch.
Dimensions of shank 2½ x ½ inch.

Weight, 7 oz. *Code—Early* Price each, $1.70

Packed one in a box.

(Furnished with shank flattened for set screw without extra charge.)

Without Shank Price each, $1.35

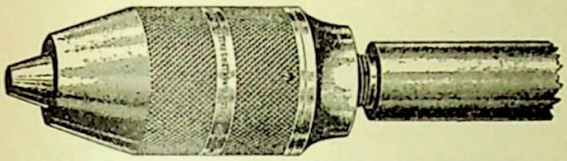
Code—Earsh

With Shank 41/64 inch Price, $1.70

Code—Earth

CHUCKS

No. 6



Specifications

Capacity 0–3/8 inch round shanks. Outside diameter 1¼ inch.
Dimensions of shank 2½ x ½ inch.
Weight 10 oz. *Code—Easel* Price, $2.05

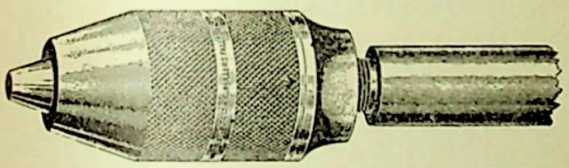
Packed one in a box.

(Furnished with shank flattened for set screw without extra charge.)

Without Shank Price, $1.65
Code—Eastr

With Shank 41/64 inch Price, $2.05
Code—Eater

No. 7



Specifications

Capacity 0–½ inch round shanks. Outside diameter 1½ inch.
Dimensions of shank 2½ x ½ inch.
Weight 17 oz. *Code—Eagle* Price, $2.80

Packed one in a box.

(Furnished with shank flattened for set screw without extra charge.)

Without Shank Price, $2.30
Code—Eares

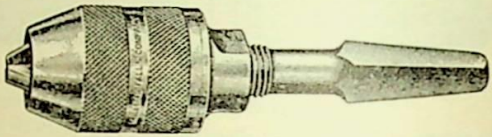
With Shank 41/64 inch Price, $2.80
Code—Eazel

With Shank ⅜ inch Price $2.80
Code—Eazet

CHUCKS

These Chucks have the same body as Nos. 5, 6 and 7. The shanks only are different. They are of the bit shank pattern which permits use in bit braces, breast drills, and other tools which hold this type of shank.

No. 15

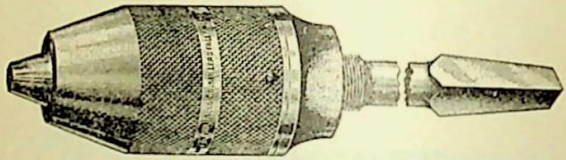


Capacity 0–¼ inch. Outside diameter of chuck 1 inch.

Weight 6 oz. *Code—Eblis* Price each, $1.7

Packed one in a box.

No. 16

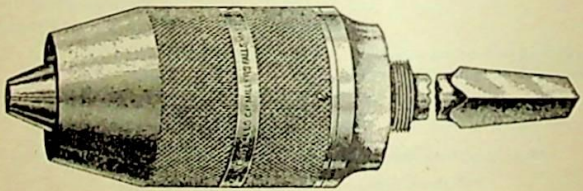


Capacity 0–⅜ inch. Outside diameter of chuck 1¼ inch.

Weight 10 oz. *Code—Ebony* Price each, $2.1

Packed one in a box.

No. 17

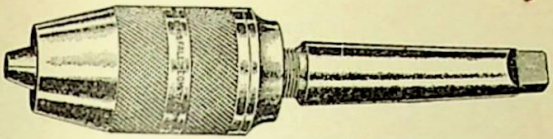


Capacity 0–½ inch. Outside diameter of chuck 1½ inch

Weight 17 oz. *Code—Ecart* Price each, $2.8

Packed one in a box.

CHUCKS WITH TAPER SHANKS



These Chucks are the same as Nos. 4, 5, 6 and 7, except have Taper Shanks. These shanks are accurately made and are according to Morse Standard. The length given is of taper only and does not include tang.

Specifications

Chuck	Taper No. 1		No. 2		No. 3		No. 4	
No.	Price	*Code*	Price	*Code*	Price	*Code*	Price	*Code*
4	$1.85	*Eccle*	$2.00	*Echel*				
5	2.25	*Echin*	2.35	*Echoe*				
6	2.60	*Eckle*	2.75	*Eclat*	$3.30	*Eclec*		
7	3.40	*Eclip*	3.55	*Ecoid*	4.10	*Ecolo*	$4.95	*Ecpho*

No. 1 Taper is 2 1/8 in. long; largest diameter .475 in.; smallest diameter .369 in.
No. 2 Taper is 2 9/16 in. long; largest diameter .700 in.; smallest diameter .572 in.
No. 3 Taper is 3 3/16 in. long; largest diameter .938 in.; smallest diameter .778 in.
No. 4 Taper is 4 1/16 in. long; largest diameter 1.231 in.; smallest diameter 1.020 in.

When ordering it is essential to specify the number of Chuck as well as the size number of taper.

LATHE CHUCK

No. 150

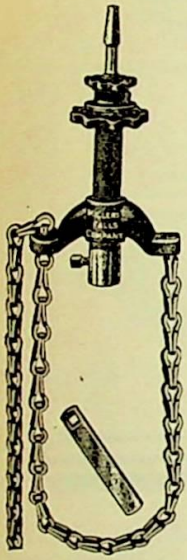
This is our well-known Master Chuck, which is so popular on our No. 732 series of braces, equipped with shank for lathe purposes.

Specifications

Capacity—bit shanks, round from 1/8 to 1/2 inch and No. 1 Morse taper shanks.
Jaws—hardened steel. Polished overall.
Length overall 5 inch. Outside diameter of chuck 1½ inch.
Dimensions of shank 2½ x ½ inch. Weight each, 1 lb. Price each, $2.05
Code—Edict
Furnished with shanks 15/16 in. (*Code—Edify*) or 41/64 in. (*Code—Educt*) in diameter without extra charge.
Special straight or taper shanks, to order 50c. extra. Packed one in a box.

CHAIN DRILL

No. 717



An auxiliary tool for use with a breast drill or bit brace, when extra power is needed, or where pressure cannot be easily applied.

The drill is automatically fed into the work by an adjustable friction feed which is automatically regulated by the resistance the drill encounters. Drill breakage is, therefore, reduced to a minimum. Requires but a moment to adjust the chain. Reverse movement of brace withdraws drill. No intricate parts to get out of order. Hand feed can be used if desired. Four feet of stout chain with each drill.

Specifications

Socket hole has diameter of ½ inch for holding shanks with this diameter.

Square head set screw holds shanks securely.

Socket drilled for ⅝ inch shanks, without charge, if requested.

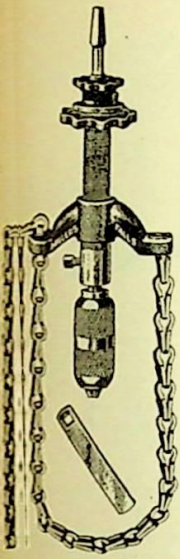
Length of main spindle 8½ inches.

Weight 3½ lbs. Price, $3.55

Code—Dedic

Packed one in a box.

CHAIN DRILLS



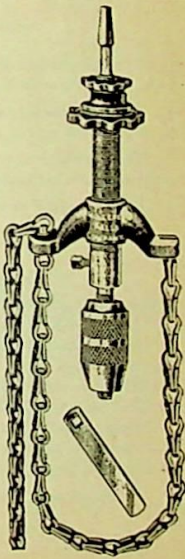
No. 718

Identical with No. 717 except has Master two jaw chuck which holds bit, round from 1/8 to 1/2 inch and No. 1 Morse Taper shanks.

Length with chuck 11½ inches. Weight 4½ lbs. Price, $4.95

Code—Decur

Packed one in a box.



No. 719

The same construction as No. 717, except is furnished with Millers Falls chuck.

Chuck—three jaw, improved protected springs. Capacity 0–½ in. Tapered shanks.

Ball thrust bearing.

Frame, malleable iron, japanned black.

Chuck polished.

Length of chuck 11¾ inches. Weight 4½ lbs. Price, $5.20

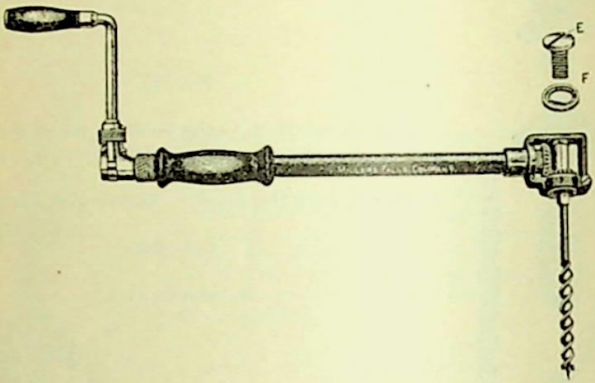
Code—Decip

Packed one in a box.

SILL BORER OR JOIST TOOL

No. 52

(Ratchet)



This tool is indispensable to car builders, electricians and others who have a great deal of special boring to do, particularly at right angles in cramped places.

The distinguishing feature of the tool is the short head 2⅜ inches only in depth, which permits its use in narrow spaces.

The crank with sweep of twelve inches, and ratchet operating either to right or left, affords ample power for hard boring. Made for wood boring only.

Figures E and F show patent cup washer which cannot work loose.

Specifications

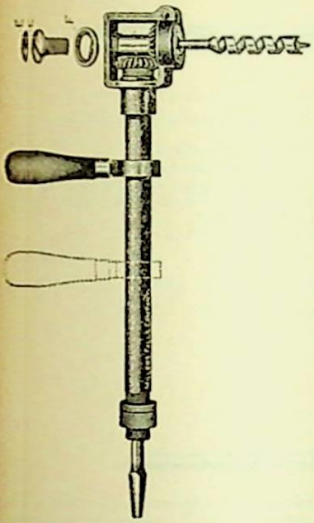
Length 23 inches. Depth of head 2⅜ inches.
Chuck—holds bit shanks only.
Gears, bushings and other working parts of hardened steel.
Ball bearings.
Take up nuts for possible wear on bearings.
Head equipped with patent cup washer and screw which keep spindle from working loose.
Frame malleable iron, japanned.
Other metal parts japanned.
Steadying handle stained hardwood.

Weight each, 4¼ lbs. Price each, $6.50

Code—Aggra

Packed one in a box.

SILL BORERS OR JOIST TOOLS



No. 51

No. 51

The head of this tool is identical with, and operates the same as No. 52. The frame instead of having crank and ratchet has a shank fitted for use with bit brace or breast drill.

Specifications

Working parts, except as noted above, same as No. 52.
Adjustable steadying handle.
Length 16½ inches.

Weight each, 3 lbs. Price each, $5.30

Code—Agreg

Packed one in a box.

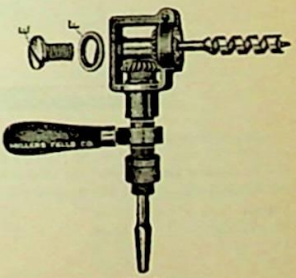
No. 54

The same as No. 51, except is 8¼ inches long.

Weight each, 2 lbs. Price each, $5.10

Code—Agran

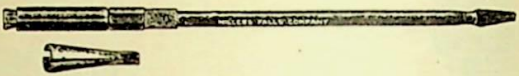
Packed one in a box.



No. 54

BIT EXTENSIONS

No. 35



Follows 11/16 bit or larger. Not recommended for Bits larger than 12/16, although is of ample strength to turn a ⅞ bit.

Having but two jaws allows extra wide surface to withstand twisting strain.

Print in jaws conforms to shape of auger bit shank, perfect alignment, no wobbling.

Jaws are removable. Easily and quickly replaced. One piece socket and shank.

Adjusting nut heavily knurled. Gives positive grip. Threaded for rapid adjustment. Upper portion of adjusting nut of hex stock to permit tightening with wrench.

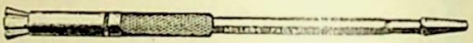
Jaws drop forged. Chuck shell of extra heavy steel tubing. Polished overall.

Lengths	12 in.	15 in.	18 in.	21 in.	24 in.	30 in.
Weight, each	10 oz.	11 oz.	13 oz.	14 oz.	16 oz.	18 oz.
Price	$2.10	2.20	2.25	2.30	2.35	2.50
Code	*Cabin*	*Cabos*	*Cabio*	*Cacko*	*Caddy*	*Cadea*

(Extra jaws per pair .35c)

Packed one in a box.

No. 5



Designed to follow a ⅜ in. bit or larger into its bore, but should not be used with bits over 11/16. Bits are inserted and released easily and quickly. The chuck is made of a special tool steel unsurpassed for strength and toughness. The jaws are steel, spring tempered, and hold the bit securely.

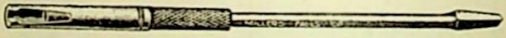
The socket is screwed and pinned to the rod. Shearing strain is overcome by pinning off center.

The knurled nut is made extra long to give a firm grip. Polished overall.

Length	12 in.	15 in.	18 in.	21 in.	24 in.	30 in.
Weight, each	9 oz.	10 oz.	12 oz.	13 oz.	15 oz.	17 oz.
Price, each	$2.00	2.05	2.10	2.20	2.25	2.35
Code	*Campo*	*Canal*	*Canor*	*Candi*	*Caney*	*Canon*

Packed one in a box.

No. 4



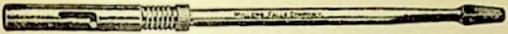
Follows bits ¾ in. or larger into their bores. Bit shank is inserted into solid socket through side opening and then made fast by turning down the shell, so shank is held between an inner socket and lip of outer sleeve. Bits can be inserted or removed quickly and easily. This is an exceptionally strong tool. Should not be used with bit over 13/16 in. in diameter. Polished finish.

Length	15 in.	18 in.	21 in.	24 in.
Weight, each	15 oz.	17 oz.	1¼ lbs.	1⅜ lbs.
Price, each	$2.35	2.45	2.55	2.60
Code	*Caldo*	*Calic*	*Calip*	*Calki*

Packed one in a box.

BIT EXTENSION

No. 11



This is a neat, strong extension, of the solid socket type.

The shell and knurled nut are made of seamless steel tubing, the socket and shank of cold rolled steel. Shank is forced into socket and pinned.

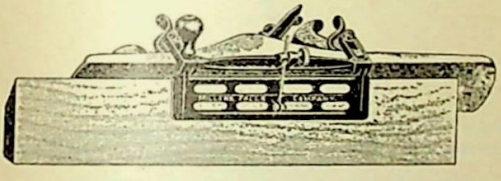
Coarse thread on nut holds securely and works rapidly. Polished overall. Follows an 11/16 bit or bit larger, but not recommended for bits larger than 12/16.

Length	15 in.	18 in.	24 in.
Weight, each	12 oz.	15 oz.	20 oz.
Price, each	$2.20	2.25	2.35
Code	*15 in.—Cambo*	*18 in.—Camel*	*24 in.—Camis*

Packed one in a box.

JOINTER GAUGE

No. 88



This tool is easily and quickly attached to iron or wood planes, and enables the operator to accurately plane bevels of any desired angle, or to make even joints without using a try square or bevel.

Attached to iron planes of all sizes by adjustable cams; to wood planes by ordinary wood screws.

Can be used on either side of plane, for right or left hand work.

Made entirely of iron. Enameled black overall, except flat surface polished and nickel plated.

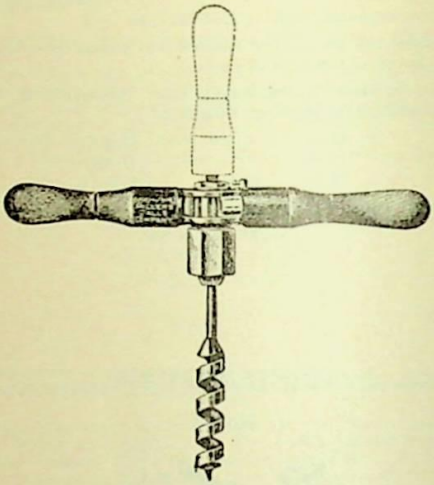
Length of guide 9 inches. Weight each, 2¼ lbs. Price each, $2.80

Code—Litra

Packed one in a box.

RATCHET AUGER HANDLE

No. 4



The feature of this handle is its ratchet construction—operating both to right and left by means of small lever. This permits its working effectively in close corners and other awkward places.

Steadying handle is detachable and can be attached to top as illustrated. Handle can be locked and used without ratchet if desired

Chuck holds practically all sizes of bit and auger shanks.

Hardwood handles. Metal parts japanned. Metal trimmings nickeled.

Length 15 inches. Weight each, 2¾ lbs. Price each, $1.50

Code—Cages

Packed one in a box.

AUGER HANDLES

No. 3

A light, yet strong handle. Single set screw. Tightening on malleable casting holds securely all ordinary bit and auger shanks. Hardwood handles. Frame japanned black.

Length 16 inches. Weight each, 1¼ lbs. Price each, $1.30

Code—Cagil

Packed three in a box.

No. 03

Identical with No. 3 except that it has two set screws.

Length 16 inches. Weight each, 1¼ lbs. Price each, $1.15

Code—Cagik

Packed three in a box.

No. 2

A stout hardwood handle. Augers are held by two 3-in. steel clamps, which open wide enough to admit all sizes of bit and all except the largest sizes of ship auger shanks. Clamps securely held by two set screws.

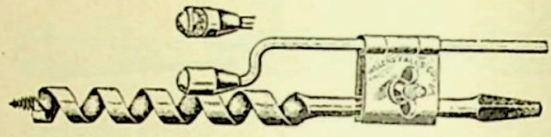
Length 17 inches. Weight each, 1¼ lbs. Price each, $ .90

Code—Cagne

Packed six in a box.

BIT GAUGES

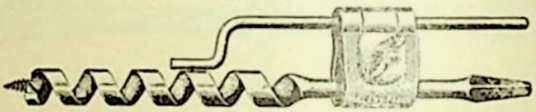
No. 2



By the use of this tool any number of holes can be bored to a uniform depth. It clamps to shank of any size auger bit, and tightens on the bit and gauge spindle at the same time. Contact ball revolves on ball bearings which reduces friction to a minimum and prevents defacing the most delicate material. Nickel plated. Steel set screw.

Length 5¾ in. Weight each, 2 oz. Packed six in a box. *Code—Apili* Price each, $ .50

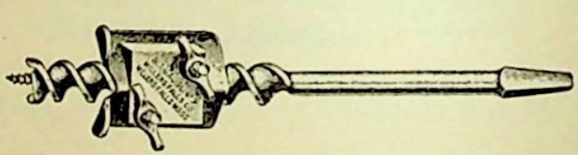
No. 1



This gauge clamps to shank of bit the same as No. 2, but is without contact ball. For this reason is recommended for common work only. Polished. Steel set screw.

Length 4¾ in. Weight each, 2 oz. Packed six in a box. *Code—Awory* Price each, $ .35

No. 36

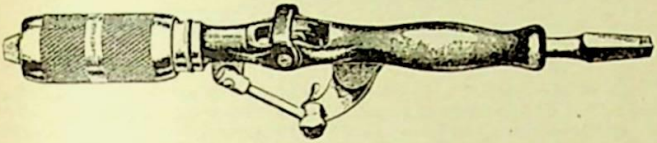


This gauge is clamped to the twist of the bit and securely held by two thumb screws. Two smooth shoes prevent marring the work. Nickel plated. Steel set screws.

Length 2 ins. Weight each, 3 oz. Packed six in a box. *Code—Awasa* Price each, $ .40

ANGULAR BIT STOCK

No. 108



Used with a bit brace or breast drill is an efficient tool for drilling at an angle. Can be used as a bit extension in straight work.

Specifications

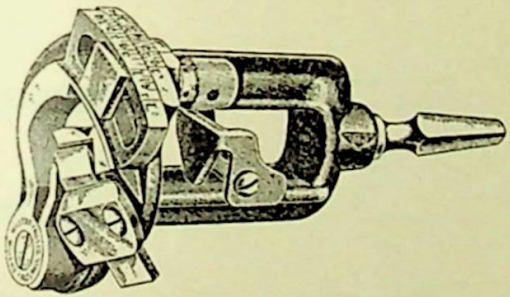
Chuck—Master. Capacity bit shanks, round from ⅛ to ½ inch, and No. 1 Morse taper shanks. Boring angle adjustable from 180° to 125°. Steel joint and pins. Main casting japanned. Chuck and other parts polished. Length (at 180°) 12½ inches.

Weight each, 2 lbs. *Code—Acaba* Price each, $2.90

Packed one in a box.

HOLLOW AUGER

No. 3



Adjustable to cut tenons from ¼ to 1¼ inches. Graduated index. Stop gauge to regulate length. Knife carefully tempered and sharpened. Steel adjusting screw Head castings of malleable iron. Frame enameled black and red. Bright parts polished.

Weight each ¾ lb. *Code—Saynd* Price each, $6.75

(Furnished with ½ inch round shank, if desired, without extra charge.)

Packed one in a box.

GLASS CUTTERS

No. 300

This multiple wheel cutter is a great convenience because as soon as a wheel becomes dull, a turn of a screw loosens the set screw and a sharp wheel is instantly in place.

The revolving turret contains six Millers Falls "Perfect Cutting" wheels, numbered as indicated in illustration. Turret is flush with frame. Cutter arbor is integral with turret—wheels protected from injury. This feature is patented.

Improved easy grip handle, hardwood, enameled. Steel cutter head and frame, polished and nickel plated.

Weight per dozen, ¾ lbs. *Code—Kafir* Price per dozen, $4.35

Packed one in a box, and one dozen in a large box.

No. 100

This cutter works on the same principle as No. 300, but the head is of different design.

Revolving turret contains seven Millers Falls "Perfect Cutting" wheels. Turret is loosened and clamped fast by a thumb screw. This screw is slotted and can be operated with a screw driver if desired. Axles in turret are controlled by a device to prevent their falling out of place while inserting new wheels.

Handle, cocobolo, polished. Steel turret and frame, polished.

Weight per dozen, 15 oz. *Code—Kafta* Price per dozen, $9.60

Packed one in a box, and one dozen in a large box.

No. 7

A low priced single wheel cutter. Improved easy grip handle.

Handle is of iron, enameled red. Cutter head is polished.

Weight per dozen, ¾ lbs. *Code—Kabob* Price per dozen, $1.95

Packed one in a box, and one dozen in a large box.

No. 5

This number has a heavy ball-shaped head for lightly tapping the glass after cut has been made. It will be found useful when cutting double thick or plate glass.

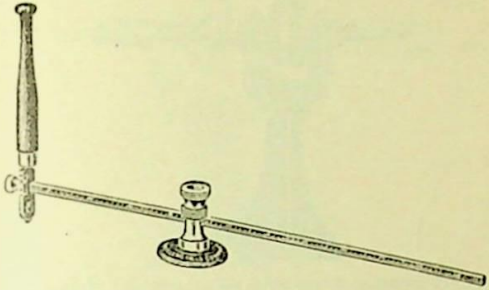
Otherwise same as No. 7.

Weight per dozen, 15 oz. *Code—Kafal* Price per dozen, $1.95

Packed one in a box, and one dozen in a large box.

CIRCULAR GLASS CUTTER

No. 301



This tool serves a double purpose. With the cutter attached it will cut circles from 2 to 24 inches in diameter, accurately and quickly.

Unscrewing the knurled end nut, releases the cutter which can be used as an ordinary glass cutter.

The cutter is our regular No. 300 with revolving turret head, containing six Millers Falls "Perfect Cutting" wheels, each wheel numbered.

Sliding bar is of hexagonal steel, and is graduated by sixteenths of an inch. The standard has a cork disk inserted to prevent slipping.

Handle—hardwood, enameled mahogany finish.

Metal parts polished and nickel plated.

Weight each 1½ lb. Price each, $1.25

Code—Kalif

Packed one in a box.

GAUGE GLASS CUTTER

No. 202

This tool is made for cutting glass tubes and has capacity up to eight inches long. Rod is easily adjustable by thumb nut. Removable axle on cutting head. Equipped with one Millers Falls "Perfect Cutting" wheel. Magazine in end of handle contains five extra wheels.

Rod is of steel, polished. Dimensions 9 x 3/16 in. Handle is of hardwood, stained and polished.

Weight each 1½ lbs. Price each, $ .90

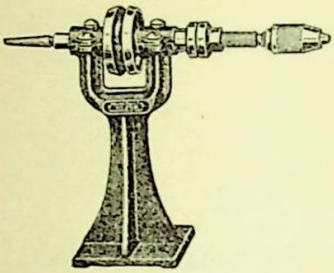
Code—Kalki

Packed six in a box.

Hold the cutter between the first and second fingers, draw the wheel entirely across the glass, and break by giving a slight bend while holding the pane tightly between the thumb and first finger of each hand.

POLISHING HEADS

No. 250



This is a small, well proportioned head which will accommodate wheels 1 inch thick and with ½ inch hole. Tapered end of spindle takes felt, or other cloth buffing wheels. Equipped with Millers Falls 3-jaw chuck with capacity 0-3/16 inch round shanks.

Specifications

Flanges adjustable from 0–7/8 inches, securely locked by nut. Pulley grooved for ¼ inch round belt or the ¾ inch face can be used for flat belt.

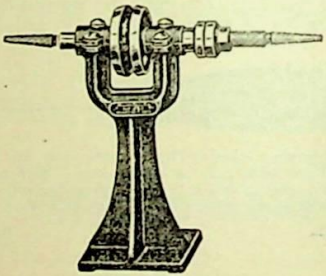
Height to center of spindle 6 in. Diameter of spindle ½ in. Base measures 2¾ in. x 2¾ in.

Diameter of pulley 1-13/16 in. Weight 2¼ lbs. Price each, $2.90

Code—Pachy

Packed one in a box.

No. 251



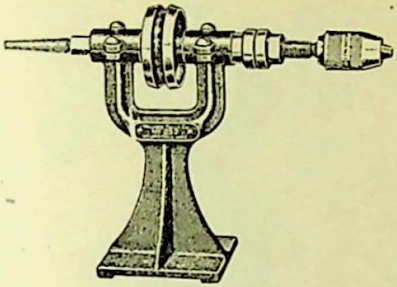
Identical with No. 250 except is not equipped with chuck. Price each, $2.40

Code—Padar

Packed one in a box.

POLISHING HEADS

No. 252

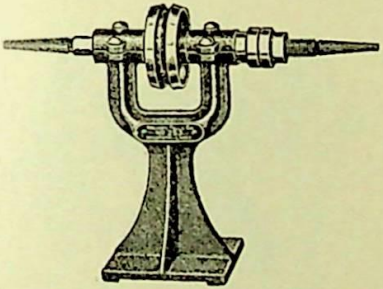


This head is of the same general construction as No. 251 but is larger and heavier. Takes wheels 1 inch thick with ½ inch hole. Equipped with Millers Falls 3-jaw chuck, with capacity to ¼ inch round shanks. Height to center of spindle 6 inches. Diameter of spindle 9/16 inch. Base measures 3¼ in. x 3¼ in. Diameter of pulley 2¼ in. Weight 3¼ lbs. Price each, $4.65

Code—Padre

Packed one in a box.

No. 253



Identical with No. 252 except is not equipped with chuck.

Price each, $3.40 *Code—Pagan* Packed one in a box.

No. 256

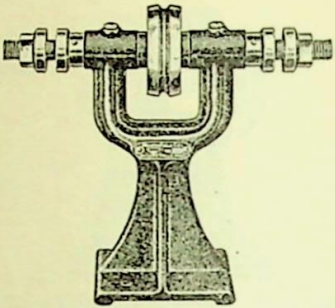
This head has frame same as No. 255 on next page, but with spindle same design as No. 252. Spindle takes grinding wheels ¾ inch thick and ½ inch hole, and a Millers Falls chuck with capacity up to ¼ inch; opposite end threaded taper to hold buffing wheels. Base measures 5 in. x 5 in.

Weight 9¼ lbs. *Code—Pagot* Price each, $7.50

Packed one in a box.

GRINDING HEADS

No. 254



The only difference between this and No. 253 is in the design of the spindle. Takes wheels ⅛ inch thick with ½ inch hole.

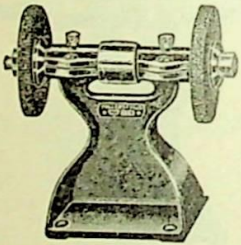
Flange adjustable from 0 to ½ inch. Securely locked by nut. Pulley grooved for ¼ inch round belt or the ¾ inch face can be used for flat belt. Height to center of spindle 6 inches.

Diameter of spindle 9/16 inch. Diameter of pulley 2 inch. Base measures 3¼ inch x 3¼ inch.

Weight 4 lbs. *Code—Paise* Price each, $4.10

Packed one in a box.

No. 255



This is one of our newer types, somewhat different in design. Exceptionally well proportioned. Improved oil caps protect bearings from dirt.

The spindle holds on either end grinding wheels ¾ inch thick with ½ inch hole.

Steel pulley takes 1¼ inch belt. Height to center of spindle 7½ inches.

Diameter of spindle ¾ inch. Diameter of pulley 1⅜ inch. Base measures 5 inch x 5 inch.

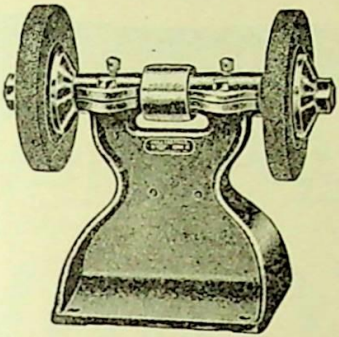
Weight 9¼ lbs. *Code—Palco* Price each, $6.25

(No emery wheels are furnished.)

Packed one in a box.

GRINDING HEADS

No. 257



Although larger and heavier, has the same frame construction as No. 255. Spindle takes grinding wheels 1 inch thick with ¾ inch hole

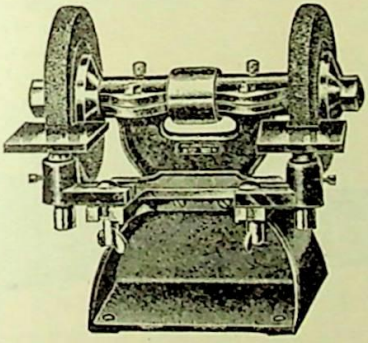
Steel pulley takes 1½ inch belt. Height to center of spindle 10¼ inches.

Diameter of spindle, 1 inch. Base measures 8 inch x 8 inch. Diameter of pulley 1-15/16 inch.

Weight 26½ lbs. *Code—Palmy* Price each, $12.60

(No emery wheels are furnished.) Packed one in a box.

No. 258



Same frame design as No. 257, but has the added features of table for holding work and grinding rests, both of which are adjustable and easily detached if desired.

This equipment adds much to the utility of the tool with but little extra cost.

Weight 32½ lbs. *Code—Parts* Price each, $16.00

(No emery wheels are furnished.) Packed one in a box.

TOOL HOLDERS

No. 1

Specifications

Handle—Cocobolo. Highly polished.
Chuck and jaws nickel plated
Length of handle 6 inches.
Weight each, ½ lb.

Length of tools 1¾ inches.
Number of tools 20.
Price each, $1.90

Code—Fairy

Packed six in a box.

No. 4

Specifications

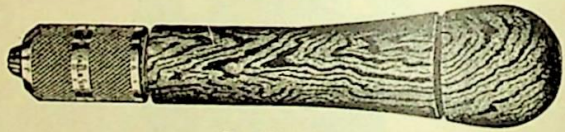
Same finish as No. 1
Length of handle 6¼ inches.
Weight each, 10 oz.

Length of tools 2¼ inches.
Number of tools 10.
Price each, $2.40

Code—Fecks

Packed one in a box.

No. 5



Specifications

Same finish as No. 1.
Length of handle 7½ inches.
Weight each, 14 oz.

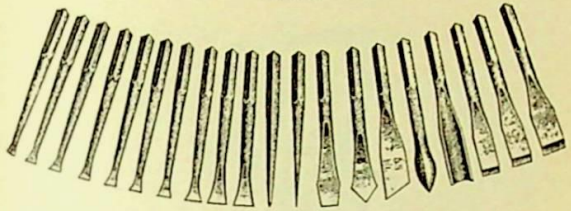
Length of tools 4 inches.
Number of tools 10.
Price each, $3.30.

Code—Feeze

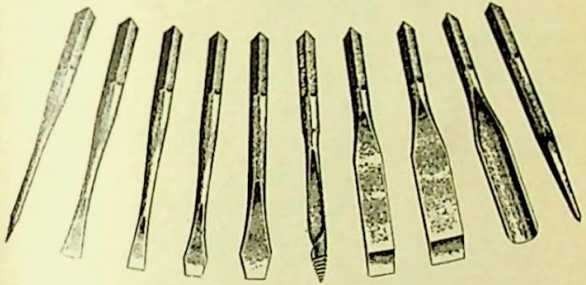
Packed one in a box.

TOOLS FOR TOOL HOLDERS

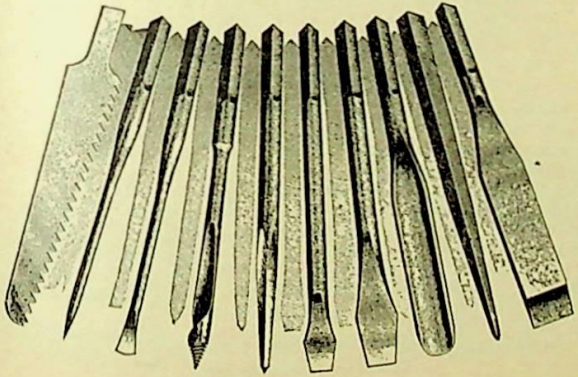
No. 1



No. 4

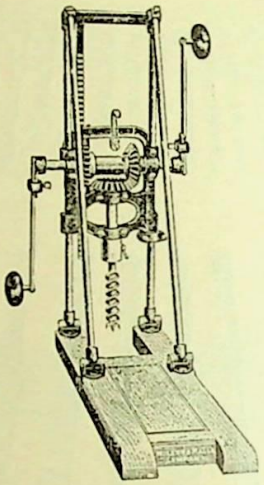


No. 5



BORING MACHINE

No. 145



An improved machine made especially for carpenters. Used largely for house framing, boring railroad ties, and other boring where speed and large capacity are essential.

Specifications

Bores vertically or at any angle within an arc of 50 degrees.
Frame locks automatically at topmost point—released by thumb latch.
Raises automatically by turning handles as in boring.
Adjustable cranks regulate speed and power.
Boring depth 12 inches. Made to order for greater depths.
Spindle cranks, uprights and angle rods of steel. Wood bottom board.
Steel and machined parts polished, other metal parts japanned.
Handles stained hardwood.

Height 25 in. Weight boxed 45 lbs., net 28 lbs. Price (without augers), $20.00

Code—Cobor

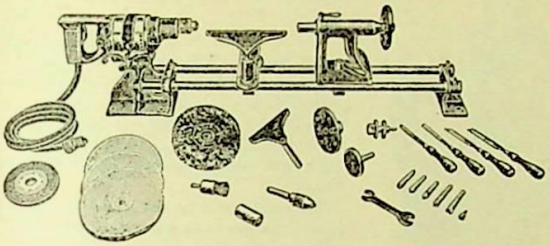
For list prices of augers see page 53.

Packed one in a wooden case.

MILLERS FALLS ELECTRIC TOOLSHOP

No. 1800

New



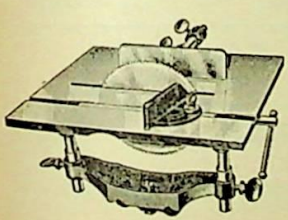
The New Electric Toolshop is 36 inches long and 10 inches high and is attractively enameled in red and black. Distance between centers 15 inches. Distance from chuck center to bed 5 inches. It comes packed complete (with the exception of the lathe-bed) in the steel carrying case as pictured at the bottom, 9 x 16½ x 7⅝ inches, and equipped with leather handle and strong hasp fastener. Shipping Weight, 75 lbs. *Code—Icbod.*

Price, $68.00 including Steel Carrying Case.

The New Electric Toolshop Includes—

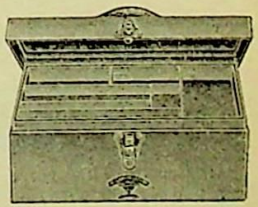
¼ inch Standard Electric Drill (power plant) with 8 ft. of cable and socket.
34 inch Lathe-Bed, with Head and Tailstock.
Rest Socket
1 Long and 1 Short Rest
2 Pointed Centers
1 Spur and 1 V Center
1 Face Plate Center
1 Cup Center
1 Screw Center
1 Adaptor
1 Chuck and Shank
1 Face Plate
1 Arbor
1 4 inch Emery Wheel
1 6 inch Wire Brush
1 6 inch Buff Wheel
1 Wire End-Brush
4 Turning Tools
1 Wrench
Steel Carrying-Case

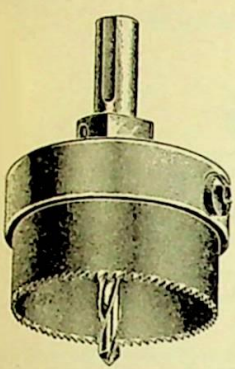
Saw Table



Size 11 x 11 inches. Is equipped with arbor for attaching to lathe-bed. Table can be tilted to an angle of 45 degrees. Price including arbor, $10.00 extra.

Weight, 25 lbs.





HIGH SPEED HOLE SAWS

The Millers Falls High Speed Hole Saw is designed especially for use in electric drills which run at high speeds.

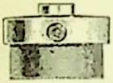
The blades are made of 18 per cent Tungsten High Speed Steel and will not lose their temper even at the high frictional heats developed at electric drill speeds.

The tooth shape and set are such that they will cut freely, rapidly, and show remarkable durability. It is not necessary to use oil or cutting solution as these high speed teeth will not become clogged with chips when cutting dry.

The construction of the holder is extremely simple, allowing the saw to be replaced readily.

The shanks for sizes 1¼" and up are made with three flat surfaces which prevent slipping in the drill chuck.

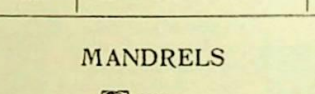
This tool is a great time saver wherever there are large holes to be cut in metal, wood, etc., and frequently the total cost of the tool is saved on the-first job. Equipped with a ¼" pilot drill and can cut to a depth of ⅜. Especially adapted for Automotive, Plumbing and Electrical work.



Specifications

Saw Size In.	Pipe Tap Size In.	Conduit Size In.	Use with Mandrel No.	Cat. No.	Cup and Saw Price	Code	Cat. No.	Saw only Price	Code
¾		¾	1218	12	$1.45	AKOCP	012	$ .70	CFKRS
⅞	¾	½	1218	14	1.45	ALNDR	014	.70	CELST
1	1	¾	1218	18	1.45	AMOES	018	.70	CFMTU
1¼			2054	20	1.45	ANWES	020	.70	CGNUV
1½	1¼		2054	24	1.45	AFOWE	024	.70	CHOVW
1¾	1½	1¼	2054	28	1.80	AGOOG	028	1.05	CIPWX
2		1½	2054	32	1.80	AHUPS	032	1.05	CJQXY
2¼	2		2054	36	2.20	AIRQT	036	1.45	CKRYZ
2½		2	2054	40	2.20	AKSRU	040	1.45	CLSZA
2¾			2054	44	2.20	ALTSV	044	1.45	CMTAB
2¾			2054	46	2.20	AMUTW	046	1.45	CNUBC
3		2½	2054	48	2.20	ANVUX	048	1.45	COVCD
3½			2054	56	2.20	AOWVY	056	1.45	CPWDE

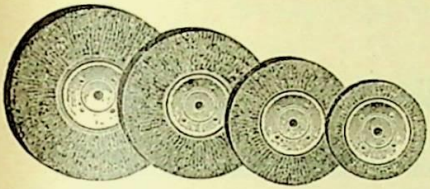
MANDRELS



No. 1218 Mandrel with Pilot Drill (for ¾" to 1¼" Saws) *Code* APXWZ.....each $1.00
No. 2054 " " " " (for 1¼" to 3½" Saws) " AJNBO..... " 1.00

WIRE WHEEL BRUSHES

for Cleaning and Polishing



These Wire Wheel Brushes are rigid and compactly made having more wires per square inch of brush surface than the average wheel. Wires being tightly compressed give greater wearing strength to brush. Have interchangeable bushings which slip into the 2 inch standard size opening and adjusts to fit any size spindle.

Arbor Bushings can be furnished with ½", ⅝", ¾" or 1" arbor hole.

Specifications

Important: Be sure to specify diameter of Arbor Hole Bushings.

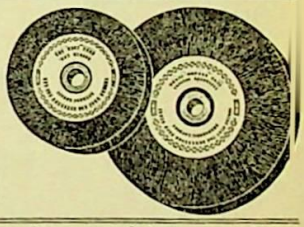
No.	Diam. In.	Width In.	Price Complete with Arbor Bushings
24	4	1	$2.25
26	6	1¼	3.25
28	8	1½	3.75

No.	Diam. In.	Width In.	Price Complete with Arbor Bushing
210	10	3/2	$6.75
212	12	2½	6.50

Extra Arbor Bushings, per set $.20

GRINDING WHEELS

Made of highest grade materials and furnished in grades most commonly used. Especially adapted for electric drills and grinders.



Specifications

No.	Diam. In.	Face In.	Arbor Hole	Grain	Grade	Price
1519	4	½	½	60	M	$1.05
636	6	½	½	36	O	2.00
660	6	½	½	60	M	2.00
1036	10	1	⅝	36	O	6.00
1060	10	1	⅝	60	M	6.00
2036	10	1¼	⅝	36	O	7.50
2060	10	1¼	⅝	60	M	7.50

BUFFING WHEEL

No. 1521

The Buffing Wheel No. 1521 will meet the need for a light portable buffer for polishing a number of different objects that have formerly necessitated hand work. The size of the wheel is 6 inches with a ½ in. hole to fit on Arbor. Two sections of twenty-ply are required to make the wheel one half inch thick.

No. 1521—Price, per 20-ply Section $.30

CARBON REMOVING BRUSH

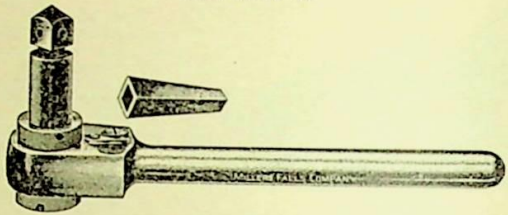
No. 1522

Very useful in removing carbon from cylinder heads, tops of pistons, valve ports, etc. Leaves fine burnished surface upon which it is hard for carbon to collect. Diameter of brush, 1¼ ins. Length of wire, 1½ ins. Spindle ¼ inch diameter. Can be used in any Electric Drills.

No. 1522 ..... Price $1.50

RATCHET DRILLS

Nos. 10–12–14



This tool is made for drilling in cramped quarters where it is impossible to use a breast or chain drill.

Ratchet can be used for either right or left hand work.

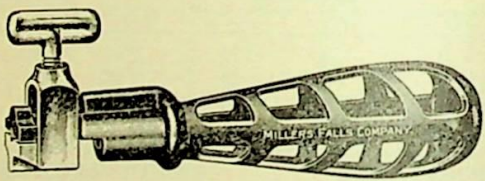
Socket hole holds shanks $\frac{5}{8}$ x $\frac{3}{4}$ x $1\frac{1}{2}$ inch. Extra socket to hold Bit shanks is furnished with each tool. Distance from top of feed screw to mouth of socket, four inches. Japanned handle, other parts polished with machinists' finish.

Nos.	10	12	14
Length of lever	10 in.	12 in.	14 in.
Weight each	$2\frac{1}{2}$ lbs.	3 lbs.	$3\frac{1}{2}$ lbs.
Price each	$7.25	7.50	7.75
Code	*Decol*	*Decoy*	*Decre*

Packed one in a box.

FILE HANDLE

No. 448



While this handle holds perfectly files with tangs of all sizes and shapes, and is primarily a file handle, yet it also holds a variety of shanks of different shapes and sizes which do not exceed $\frac{3}{4}$ inch square or flat.

Malleable iron handle, japanned black. Screw and yoke white nickeled.

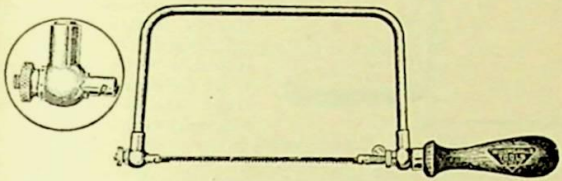
Length $5\frac{1}{4}$ inches. Weight each, 5 oz. Price each, $ .30

Code—Scamp

Packed six in a box.

COPING SAWS

No. 42



This is our most improved frame and is unsurpassed for ease of operation and convenience in sawing under all conditions.

Ball bearings located under the outer head permit free action of the blade and insure its constant alignment. The frame can be set to swing free regardless of the direction the blade takes in sawing. A circle can be cut out without stopping to adjust it.

*By means of locking devices at both ends of the blade, it can be locked rigid in the frame facing in any one of four directions. Holds both Nos. 60 and 65 blades. Three No. 60 blades with each frame.

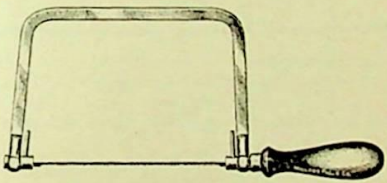
Frame of heavy steel wire, polished and nickel plated. Stained hardwood handle.

Depth 4⅛ inches. Weight each, 7 oz. Price each, $1.55

Code—Irade

Packed three in a box.

No. 43



This is a rigid, durable frame, made of stiff, flat spring steel. Blade is controlled by pins in studs at either end, making it unnecessary to remove blade from frame when it is desired to change direction of cut. Blades are strained by turning handle, and can be locked at any angle by turning handle against frame clamp. Holds both Nos. 60 and 65 blades. One No. 65 blade furnished with each frame.

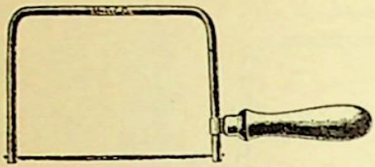
Nickeled metal parts. Stained hardwood handle.

Depth 4¾ inches. Weight each, 6 oz. Price each, $ .90

Code—Irian

Packed six in a box.

COPING SAWS



No. 40

This frame is smaller and less expensive than Nos. 42 and 43.

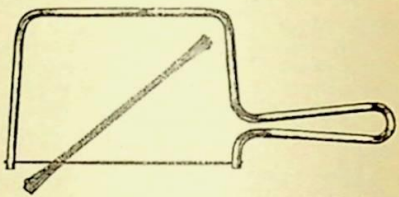
Frame is of steel wire, nickeled. Handle is stained hardwood and is securely clamped to the frame. Holds either No. 50 or 60 blades. One dozen No. 50 blades furnished with each frame.

Depth 8¾ inches. Weight each, 4 oz. Price each, $ .55

Code—Irida

Packed twelve in a box.

No. 44



This is a low priced, yet serviceable frame. Made entirely of stiff wire stock, ¼ inch in diameter, and nickeled overall. Blades are faceable in four directions. Holds either No. 50 or 60 blades. One dozen No. 50 blades furnished with each frame.

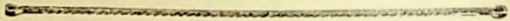
Depth 4 inches. Weight each, 5 oz. Price each, $ .35

Code—Irish

Packed six in a box.

COPING SAW BLADES

No. 50



Loop, or turned ends, pattern. For use with Nos. 40 and 44 frames.

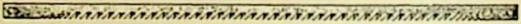
Dimensions 6 x 1/16 inches. Weight per gross, 6 oz. Price per gross, $1.55

Code—Irous

Packed one dozen in an envelope, also in boxes of five gross, each gross separately wired.

Nos. 60 and 65

(Pin Pattern)



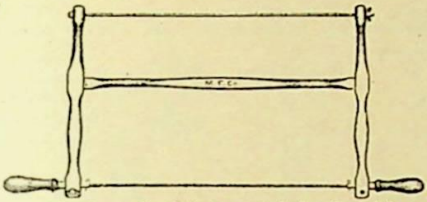
These blades cut faster and straighter, and will outwear the finer toothed blades. Made of spring tempered steel. Pins solidly held. No. 60 for use with frames Nos. 40, 42, 43 and 44. No. 65 for use with frames Nos. 42 and 43.

	No. 60	No. 65
Dimensions	6 x 3/32 in.	6½ x 3/32 in.
Weight per gross	9 oz.	11 oz.
Price per gross	$3.10	$3.10
Code	*Ischi*	*Isiac*

Packed one dozen in an envelope.

TURNING SAW FRAME

No. 357



This frame is made of birch wood, which is particularly adapted for web saws because it is light, yet strong. Blades held by steel pins, strained by thumb nut. Friction on handles regulated by screws. Steel tension rod. Handles stained. Depth 7¼ inches. One blade furnished with each frame.

Capacity	14 in.	18 in.	24 in.
Weight each	1 lb., 6 oz.	1 lb., 10 oz.	1 lb., 14 oz.
Price each	$1.70	1.80	2.00
Code	*Inlay*	*Inlet*	*Inmew*

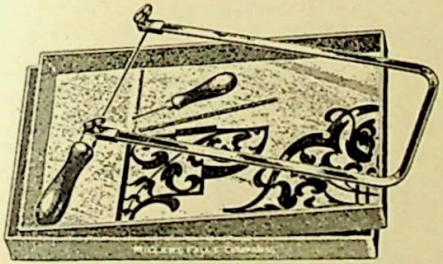
Packed one in a box.

TURNING SAW BLADES

Length	14 in.	18 in.	25 in.
Width	3/16 in.	3/16 in.	3/16 in.
Weight per dozen	5 oz.	6 oz.	9 oz.
Price per dozen	$3.55	4.45	6.20
Code	*Inner*	*Innox*	*Innof*

FRET SAW SETS

No. 2



An excellent set for amateurs. The frame is of high grade spring steel, with enameled handle, and patent clamps, which hold the blade securely. Frame has depth of 12 inches, width of 5 inches, and is highly polished and nickel plated. Other articles include twelve blades, one awl, one sheet of impression paper and three sheets of designs.

Weight each, 17 oz. *Code—Itire* Price each, $1.50

Packed one set in a box.

No. 1

The frame in this set is white nickeled and has japanned iron handle. Otherwise the set is identical with No. 2.

Weight each, 14 oz. *Code—Iulus* Price each, $1.10

Packed one set in a box.

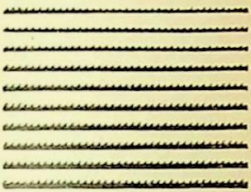
FRET SAW BLADES

Successful fret sawing depends largely upon the cutting qualities of the blades. "Millers Falls" blades have no equal for durability. Cut fast, smooth, and are of uniform high quality.

Length overall 5 inches.

Nos.	Price per gross
000	$1.60
00	1.60
0	1.60
1–3	1.70
4–6	1.80
7–9	1.90
10–12	2.00
Ass't. 0–6	1.70
1–6	1.70

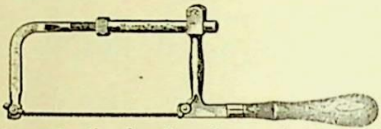
Code—Ivory



Packed one gross each size in a package and ten gross in a box.
Also put up ten gross in a box, each gross assorted Nos. 1 to 6.

JEWELER SAW FRAMES

No. 377

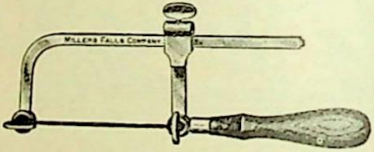


This frame is of better construction than the ordinary tool of this kind. It is adjustable from 4 to 6 inches by means of a knurled nut, which locks securely against the solid portion of the back. The upright post is firmly fastened to back by a set screw. Blades are held by thumb screws at either end.

Specifications

Frame—forged spring steel, nickeled. Clamps—steel. Handle—hardwood, stained.
Depth 2¼ inches. Weight each, 4 oz. Price each, $2.70
Code—Jabot
Packed three in a box.

Nos. 378–379



These are light, well balanced frames, less expensive than No. 377. Adjustable from 4 to 6 inches, by means of thumb screw. Blades held securely by thumb screw at either end.

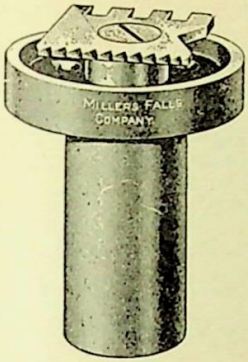
Specifications

Frame—forged spring steel, nickeled. Clamps—steel. Checked and hardened.
Handle—cocobolo, highly polished.

Nos.	378	379
Depth	2 in.	3 in.
Weight each	3 oz.	4 oz.
Price each	$1.35	1.45
Code	*Jacky*	*Jacob*

Packed three in a box.

BENCH HOOK



No. 56

PLUMB BOBS

Nos. 1–4

No. 56

A strong, rigid tool easily inserted in any bench. Has four faces, adjustable to any desired position and height by means of set screw in center.

Steel hook, nickeled. Inner surface of socket enameled red. Edge of socket polished.

Upper part of socket 2 inch and lower part 1 inch in diameter.

Weight each, 10 oz. Price each, $1.15

Code—Livid

Packed six in a box.

PLUMB BOBS

Nos. 1–4

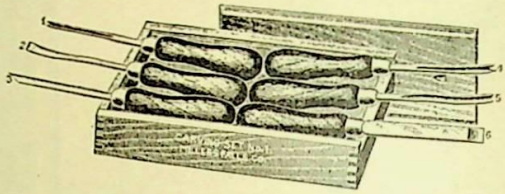
These plumb bobs are machine turned from cold rolled steel. The points are sharpened and hardened; the round surfaces smoothly finished. Hang true and insure positive accuracy in plumbing and leveling.

Nos.	1	2	3	4
Length	2¾ in.	3½ in.	4 in.	5 in.
Weight each	3 oz.	6 oz.	9 oz.	14 oz.
Price each	$ .30	.35	.50	.70
Code	*Lloyd*	*Loach*	*Liver*	*Loany*

Packed six in a box.

CARVING TOOL SETS

No. 1



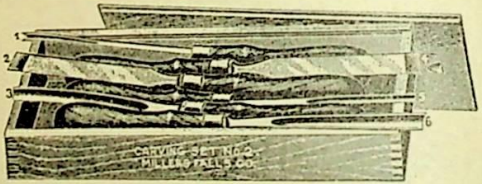
A small, yet thoroughly practical set. Contains the following six tools, as illustrated:
"V" tool, bevel chisel, curved gouge, straight chisel, "U" tool, straight gouge.
Forged steel blades with keen cutting edges. Stained hardwood handles, ferrules, polished and nickel plated.
Packed in hardwood box with sliding cover. Length of tools 5½ inches.

Weight per set (with box), 9 oz. Price per set, $2.75

Code—Toast

Packed each box in a carton.

No. 2



This set differs from No. 1 only in the length of tools.

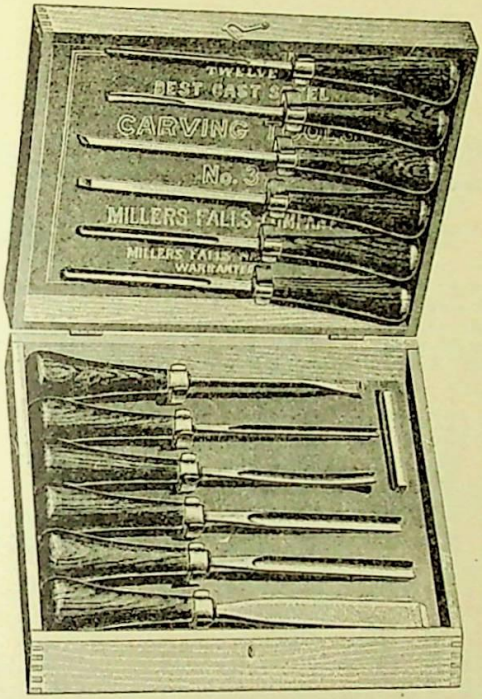
Length of tools 8½ inches. Weight per set (with box), 1 lb. Price per set, $3.85

Code—Tobit

Packed each box in a carton.

CARVING TOOL SET

No. 3



A high quality set made especially for manual training school use. Contains the following twelve tools: "U" tool, veining tool, narrow bevel chisel, narrow chisel, small circular gouge, small flat gouge, bent chisel, "V" tool, curved gouge, large circular gouge, large flat gouge, wide chisel.

Clips hold each tool firmly in place.

Forged steel blades, with keen cutting edges. Strained hardwood handles. Polished and nickel plated ferrules. Packed in hinged hardwood box.

Length of tools, except matting tool, average 8½ inches.

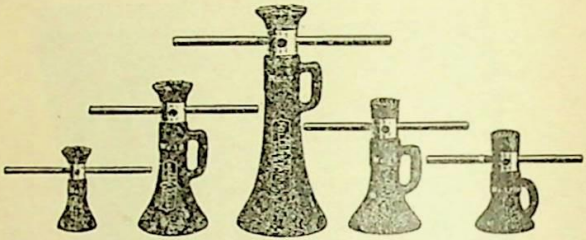
Weight per set (with box), 3⅝ lbs. Price per set, $13.50

Code—Toddy

Packed each box in a carton.

JACK SCREWS

Nos. 1–20



These jacks are heavier, more accurately made, have easier action and are more durable than the ordinary jack screw.

Screws are forged from Bessemer steel. Threads are lathe cut, and mesh perfectly with the barrel. Swivel caps are securely held to screw. Tops are either checked, or have raised ribs to prevent slipping. Barrels are cast iron. Base is broad. Enameled black overall.

Nos.	Diameter of Screw Inches	Height of Barrel Inches	Minimum Height of Jack Inches	Net Rise Inches	Maximum Height of Jack Inches	Weight Lbs.	Estimated Lifting Capacity Tons	*Code Word With Lever	Price With Lever	Price Without Lever
1	1¼	6	9	4	13	8½	5	*Rodeo*	$ 5.25	$ 4.90
2	1¾	7	10	6	16	9½	5	*Rodge*	5.90	5.55
3	1½	7	10¾	5	16	16	8	*Rogue*	7.10	6.75
4	1½	9	12¾	7	20	20½	8	*Roial*	8.30	8.00
5	1½	11	14¾	9	24	22½	8	*Rohan*	9.50	9.20
6	1¾	9	12¾	6	18	22½	12	*Rohob*	9.75	9.40
7	1¾	10½	14¾	8	22	25	12	*Roman*	11.00	10.60
8	1¾	12½	16	10	26	29	12	*Rompu*	11.60	11.25
9	1¾	14½	18¼	12	30	32	12	*Rondo*	12.75	12.40
10	2	8	12¾	5	17	27	15	*Rocky*	12.90	12.50
11	2	10	14	7	21	31	15	*Roost*	13.65	13.30
12	2	12	16¼	9	25	35	15	*Roper*	14.25	13.85
13	2	16	20½	13	33	41	15	*Roque*	15.50	15.15
14	2½	9½	15	8	23	45½	20	*Roric*	15.50	15.00
15	2½	11½	16¾	10	27	50	20	*Rosal*	16.50	15.90
16	2½	15½	20¾	14	35	62	20	*Rosco*	18.25	17.70
17	2½	19½	25	18	43	75	20	*Rosin*	20.75	20.25
				CAR JACKS.						
17½	2	6	10	4	14	19½	15	*Rotal*	$10.50	$10.20
18	2	8½	12½	5	17	25	15	*Rotor*	11.60	11.20
19	2	10½	14¾	7	21	29	15	*Rough*	12.60	12.20
20	2	12	16	9	25	35	15	*Rouse*	13.60	13.20

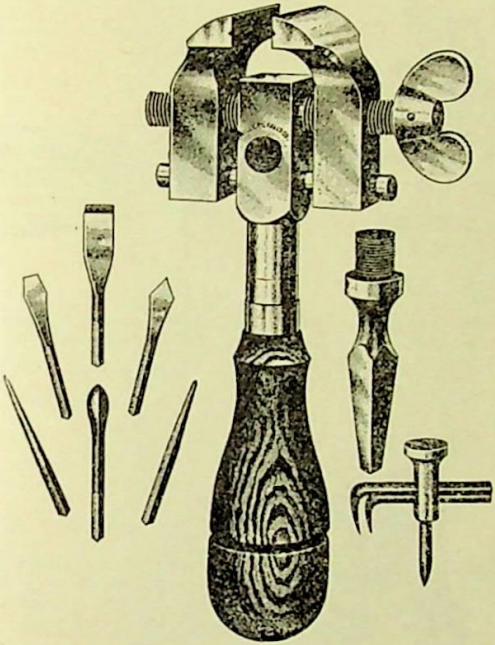
N.B.—Jackscrews are furnished with levers unless ordered without.

Jackscrew Nos.	1, 2, 3, 4, 5	6, 7, 8, 9	10, 11, 12, 13 17½, 18, 19, 20	14, 15, 16, 17
Diameter of Lever	⅝ in.	¾ in.	13–16 in.	1 in.
Length of Lever	17 in.	18 in.	19 in.	24 in.
Weight of Lever	1¾ lbs.	2¼ lbs.	2¾ lbs.	5¼ lbs.
Price of Lever	$0.45	0.45	0.55	0.65

*For code word of jackscrews without lever, prefix "no" to code word for same number with lever; *e. g.*, No. 1 without lever, *Norodeo*: No. 2 without lever, *Norodge*.

HAND VISE

No. 1



An exceptionally strong, well made vise, superior to the ordinary tool of this kind.

Handle is detachable and can be screwed into vise at right angles. Bit shank provided which can be screwed into the tool either in the position of the handle as shown in the illustration, or at right angles, permitting use in a bit brace.

Cocobolo handle, hollow end, containing chisel, screw driver, countersink, square reamer, brad awl, scratch awl and washer cutter.

Forged steel jaws. Steel screw. Exposed metal parts polished and nickel plated.

Length 6¾ inches. Jaws open, 1 inch.

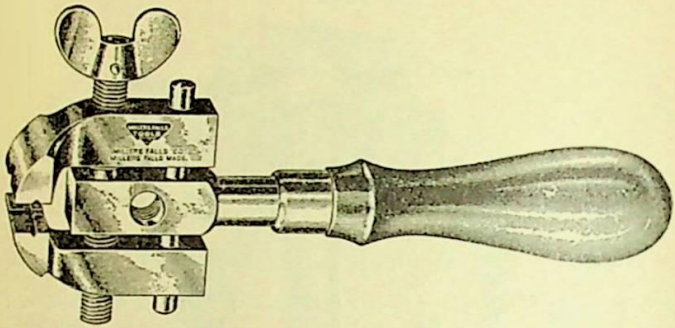
Width of Jaws 1¼ inches Weight each, 17 oz. Price each, $5.10

Code—Raten

Packed one in a box.

HAND VISE

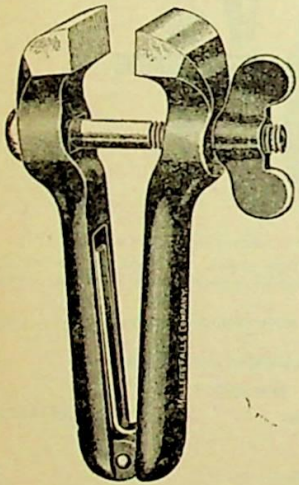
No. 2



The main difference between this and No. 1 vise is in the handle, which is solid and of stained hardwood. It is detachable, however, same as No. 1. Furnished without assortment of tools.

Jaws open 1 inch. Width of jaws 1¼ inches. Length 7 inches Weight each, 14 oz.

Packed one in a box. *Code—Razor* Price each, $4.50



No. 3

This vise is made entirely of steel. Jaws are operated by a heavy spring, which is controlled by thumb nut and screw bolt. Jaws are checked to insure firm grip. Enameled black, except jaws are polished.

Length 5 inches Width of jaws 1½ inches.

Jaws open 1¼ inches. Weight each, 1⅛ lbs.

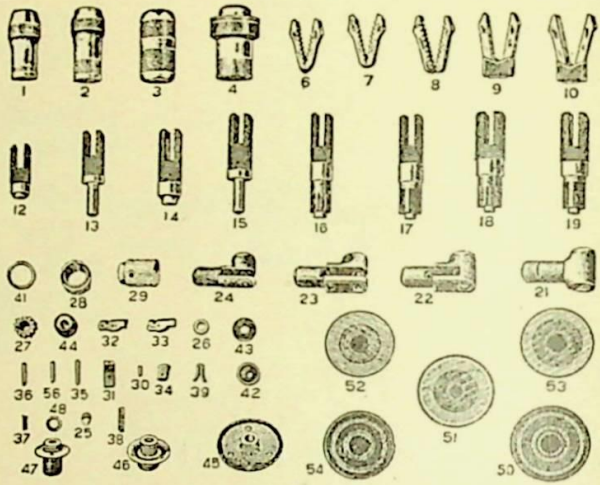
Price each, $1.75

Code—Reake

Packed one in a box.

REPAIR PARTS

PARTS FOR BRACES



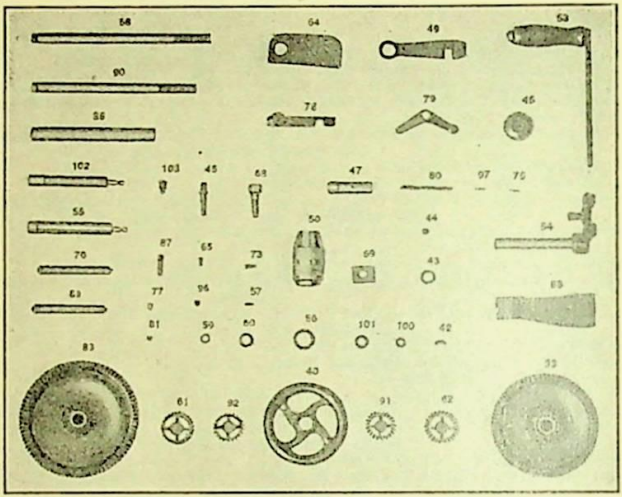
In ordering parts, the number of the brace for which they are wanted should be specified, as well as the number of the part.

No.		Price Each
1	Shell for Nos. 141–143, 161–163	$ .40
1	Shell for Nos. 261–263	.35
1	Shell for Nos. 1661–1663	.45
2	Shell for Nos. 631–633	.40
2	Shell for Nos. 30–34, 30A–34A, 131–133, 12–14	.60
2	Shell for Nos. 321–323, 1321–1324, 421–423, 221–223	.55
3	Shell for Nos. 730–734, 8130–8133	60
4	Shell for Nos. 870–872, 769–773, 7312	1.70
		Pair
6	Jaws for Nos. 141–143, 161–163, 631–633, 261–263	.10
6	Jaws for Nos. 1661–1663	.20
7	Jaws for Nos. 421–423	.20
8	Jaws for Nos. 30–34, 30A–34A, 131–133, 321–323, 1321–1324, 12–14, 221–223	.50
9	Jaws for Nos. 730–734, 8130–8133	.65
10	Jaws for Nos. 870–872, 769–773, 7312	.65
		Each
12	Chuck socket for Nos. 141–143	.15
13	Ratchet chuck socket for Nos. 161–163, 1661–1663, 261–263	.25
14	Chuck socket for Nos. 12–14, 221–223	.25
15	Ratchet chuck socket for Nos. 321–323, 1321–1324, 421–423, 631–633	.30
16	Ratchet chuck socket for Nos. 30–34, 30A–34A	.50
17	Ratchet chuck socket for Nos. 130–133	.50
18	Ratchet chuck socket for Nos. 769–773, 730–734, 7312	.55

PARTS FOR BRACES—Continued

No.		Price Each
119	Ratchet chuck socket for Nos. 8130-8133, 870-872	$ .55
221	Crooked socket for Nos. 131-133, 870-872, 8130-8133	.90
222	Crooked socket for Nos. 769-773, 730-734, 30-34, 30A-34A, 7312	.70
223	Crooked socket for Nos. 321-323, 1321-1324, 421-423, 161-163, 1661-1663, 631-633	.70
224	Crooked socket for Nos. 261-263	.35
225	Ratchet chuck socket screw for Nos. 870-872, 769-773, 730-734, 8130-8133, 30-34, 30A-34A, 130-133, 7312	.10
226	Ratchet chuck socket washer for braces as under No. 25	.10
227	Ratchet gear for braces as under No. 23 and No. 24	.10
228	Boxed ratchet rings for Nos. 769-773, 730-734, 30-34, 30A-34A, 321-323, 1321-1324, 421-423, 161-163, 1661-1663, 631-633, 7312	.20
229	Enclosed ratchet rings (complete with cam) for Nos. 870-872, 130-133, 8130-8133	.25
380	Enclosed ratchet ring screw for braces as under No. 29	.10
381	Enclosed ratchet pawls and pins (set of two) for Nos. 870-872, 8130-8133, 130-133	.20
382	Boxed ratchet pawls and pins (set of two) for Nos. 769-773, 730-734, 30-34, 30A-34A, 7312	.25
383	Ratchet pawls (set of two) for Nos. 321-323, 1321-1324, 421-423, 1661-1663, 161-163, 631-633	.25
384	Ratchet pawls (set of two) for Nos. 261-263	.15
385	Ratchet pawl pins for all Nos. except 261-263	.10
386	Ratchet pawl pins for Nos. 261-263	.10
387	Enclosed ratchet pawl springs (set of one) for Nos. 870-872, 130-133, 8130-8133	.10
388	Ratchet pawl spring (set of one) for Nos. 769-773, 730-734, 30-34, 30A-34A, 321-323, 1321-1324, 421-423, 161-163, 1661-1663, 631-633, 7312	.10
389	Ratchet pawl spring (set of one) for Nos. 261-263	.10
431	Socket ring washer for braces Nos. 870-872, 769-773, 730-734, 8130-8133, 30-34, 30A-34A, 130-133, 7312	.10
432	Ball race for Nos. 870-872, 769-773, 730-734, 8130-8133, 130-133, 30-34, 30A-34A 12-14, 321-323	.10
433	Ball bearing washer for Nos. 870-872, 769-773, 730-734, 8130-8133, 30-34, 30A-34A, 130-133, 12-14, 221-223, 321-323, 1321-1324	.10
444	Anti-friction collar for Nos. 1321-1324, 221-223	.10
435	Quill for Nos. 870-872, 769-773, 30A-34A, 1321-1324	.45
436	Quill for Nos. 730-734, 8130-8133, 30-34, 130-133, 321-323, 12-14, 221-223	.35
437	Quill for Nos. 421-423, 161-163, 1661-1663, 631-633, 261-263, 141-143	.20
438	Quill washer for Nos. under 46 and No. 7312	.10
439	Quill washer for Nos. under 47 (not illustrated)	.10
500	Head for braces Nos. 870-872, 769-773, 30A-34A	.50
511	Head for braces Nos. 730-734, 30-34 8130-8133, 130-133, 12-14	.50
522	Head for braces Nos. 321-323, 221-223	.25
533	Head for braces Nos. 421-423, 161-163, 1661-1663, 631-633, 261-263, 141-143	.20
544	Head for braces Nos. 1321-1324	.25
565	Ratchet gear pin for braces as under Nos. 23 and 24	.10

PARTS FOR BENCH DRILLS NOS. 210 AND 216

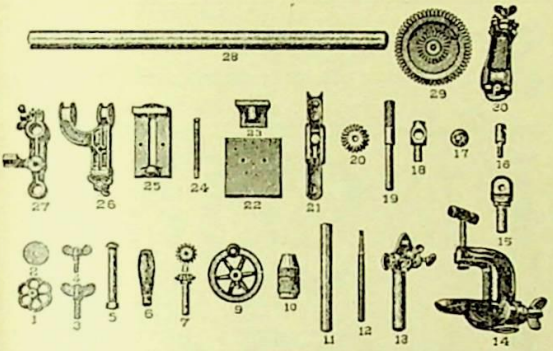


Part No.	Used on	Name of Part	Price
40	216-210	Feed wheel	$ .60
41	216-210	Feed wheel pin (Br. long dog)	.10
42	216-210	Spline key	.10
43	216-210	Key collar	.15
44	216-210	Key collar screw	.10
45	216-210	Table bracket clamp screw (No. 210 arm)	.10
46	216-210	Bench clamp screw washer	.10
47	216-210	Bench clamp screw handle	.20
48	216-210	Bench clamp screw handle pin	.10
49	216-210	Wrench	.10
50	216-210	Chuck No. 7, nickeled	2.60
51	216-210	Shifter Dog pin (No. 99 Br. Dr.)	.10
52	216-210	Gear pin (No. 18 Pinion)	.10
53	216-210	Flat crank handle, complete	.40
54	216-210	Crank casting, complete (with large gear shaft)	.55
55	216	Feed screw	.60
56	216	Feed gear	.10
57	216	Feed gear spline gib	.10
58	216	Spindle	.55
59	216	Small ball race	.10
60	216	Large ball race	.10
61	216	Slow pinion	.25
62	216	Fast pinion	.30
63	216	Frame	11.05
64	216	Frame cap	.10
65	216	Frame cap screw (No. 102 Spk. Pt.)	.10
66	216	Table	2.30
67	216	Table bracket	1.30
68	216	Table bracket bolt	.10
69	216	Table bracket bolt nut	.10
70	216	Bench clamp screw	.15
71	216	Shifter, complete	$1.60
72	216	Shifter barrel (two speed)	.20
73	216	Shifter dog (two speed)	.20
74	216	Shifter cam	.15
75	216	Shifter dog spring (No. 87 Br. Dr.)	.10
76	216	Shifter sleeve (knurled)	.35
77	216-210	Spline pin	.10
78	216	Feed bar, complete	.55
79	216	Cam lever, complete	.20
80	216	Cam lever spring	.10
81	216	Cam lever spring plug	.10
82	216	Steel ball bearings, 3/32 in., per doz.	.10
83	216	Large gear	1.20
84	210	Frame	7.00
85	210	Table	1.45
86	210	Table post	.65
87	210	Table post set screw (Bor. M. Top Cap)	.10
88	210	Table arm	.85
89	210	Bench clamp screw	.10
90	210	Spindle	.40
91	210	Fast pinion	.20
92	210	Slow pinion	.20
93	210	Large gear	.95
94	210	Shifter, complete	1.50
95	210	Shifter barrel	.10
96	210	Shifter dogs (No. 99 Br. Dr.)	.20
97	210	Shifter dog spring (No. 99 Br. Dr.)	.10
98	210	Shifter cam	.10
99	210	Shifter sleeve (knurled)	.30
100	210	Small bearing washer	.10
101	210	Large bearing washer	.10
102	210	Feed screw	.10
103	216	Cam lever screw	.10

Note—Please order by drill number as well as part number in order to avoid possible chance of error. Those parts not illustrated are easily identified by descriptive list.

PARTS FOR BENCH DRILLS

Nos. 20 and 21

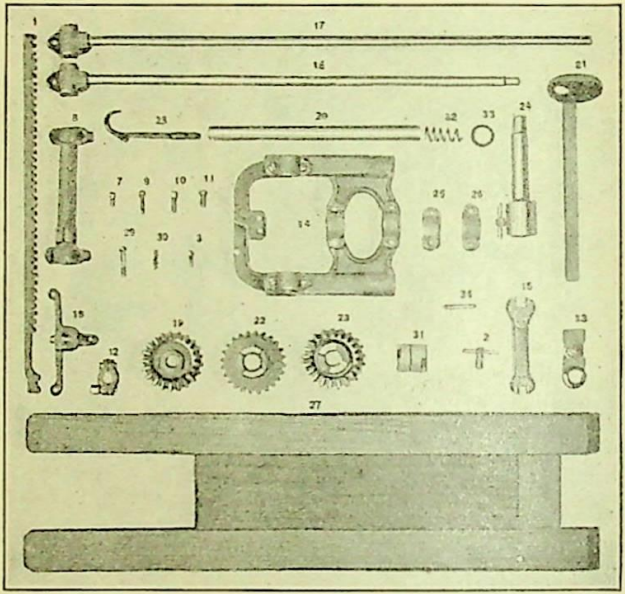


1	Vise wheel	$ .10
2	Fiber washer	.10
3	Bench clamp binder screw	.10
4	Frame thumb screw and vise arm thumb screw	.20
5	Crank handle bolt and nut	.20
6	Crank handle	.35
7	Arbor and gear	.20
8	Spindle gear	.15
9	Feed wheel, complete	.55
10	Chuck	2.60
11	No. 21 attachment frame	1.30
12	Feed screw	.60
13	No. 20 attachment, complete	1.90
14	Bench clamp, complete	1.50
15	Swivel	.80
16	Vise swivel screw	.10
17	No. 21 attachment gear screw	.15
18	No. 21 attachment gear stud	.45
19	No. 21 attachment spindle	.50
20	No. 21 attachment pinion	.50
21	No. 21 attachment crank, complete	1.05
22	Vise table	.50
23	Vise short jaw	.30
24	Vise feed screw	.10
25	Vise long jaw	.80
26	Lower frame, complete	.50
27	Upper frame, complete	.55
28	Standard	.90
29	No. 21 attachment large gear	.90
30	Vise arm, complete	1.30

Please order by drill number as well as part number. It will avoid possible chance of error.

PARTS FOR BORING MACHINE

No. 145



Ordering by number will avoid possible error and save unnecessary correspondence.

No.	Name of Part	Price
1	Rack	$ .90
2	Chuck Set Screw	.10
3	Short Rod Set Screw	.10
7	Arbor Cap Screw or Spider Screw	.10
8	Top Cap	1.05
9	Hook Screw (short) or Rack Screw	.10
10	Long Rod Set Screw	.10
11	Spindle Cap Screw	.10
12	Stop, complete	.30
13	Crank Casting, complete	.30
14	Frame	3.45
15	Wrench	.25
16	Short Rod, complete	1.15
17	Long Rod, complete	1.20
18	Spider, complete	.40
19	Spindle Gear	$ .65
20	Arbor	.40
21	Flat Handle, complete	.60
22	Rack Gear	.75
23	Arbor Gear	.75
24	Chuck Spindle, complete	1.25
25	Arbor Cap	.10
26	Spindle Cap	.10
27	Table	2.20
28	Hook	.20
29	Hook Screw (long)	.10
30	Hook Spring	.10
31	Clutch	.25
32	Gear Spring	.10
33	Gear Washer	.10
34	Taper Pin	.10

PARTS FOR HAND DRILLS AND BREAST DRILLS

HAND DRILLS

No.	Main Handle, each	Stationary Side Handle, each	Crank and Handle, per set	Chuck complete each	Jaws, per set	Large Gear, each	Small Gear, each	Main Frame, each	Cap only for handle
1	.65	.25	.25	1.50	.60	.50	.10	.70	.25
01	.25	.25	.25	1.50	.60	.50	.10	.70	...
2	1.00	.25	.50	2.00	.70	.75	.10	.90	.30
2b	.35	.25	.50	2.00	.70	.75	.10	.90	...
3	.55	.25	.20	1.50	.60	.40	.10	.80	...
4	....	....	.10	.10	...	.20	.15	.25	...
4d	....	....	.10	.65	.20	.20	.15	.25	...
5	.65	.25	.20	1.50	.60	.60	.10	.65	...
05	.25	.25	.20	1.50	.60	.60	.10	.65	...
7	.25	.25	.15	2.00	.70	.55	.15	.75	...
77	.15	.10	.20	1.00	.30	.35	.10	.40	...
85	.20	....	.20	1.05	.40	.25	.10	.65	...
94	.12	....	.12	1.05	.30	.32	.10	.15	...
104	.40	....	.20	1.50	.40	.35	.10	.50	.20
303	.40	.25	.20	1.50	.60	.40	.10	.25	.15
315	.40	.25	a1.15	1.50	.40	.65	.10	.30	.15
980	.80	.25	.25	2.00	.70	.80	.15	1.20	...
1980	.80	.25	a1.00	2.00	.70	.80	.15	1.20	...
....	....	....	....	....	....	....	....	....	....

BREAST DRILLS

No.	Chuck complete each	Chuck Jaws	Chuck Shell, each	Chuck Socket, each	Frame, each	Large Gear, each	Small Gear, each	Crank only, each	Crank Handle, Wood only, ea.	Bolt and Nut for C'nk H'dl, per s't	Stationary Side Handle, each	Breastplate, each	Auxiliary Breastplate, each	Gear Screw, each	Crank Screw, each	Long Ball Cup, each	Short Ball Cup, each	Spindle, each	Frame Stem, each	Joint Screw, each	Level, each
10	h2.00	e .80	.70	1.40	1.10	1.00	.50	k .90	.25	.20	.35	.40	....	.15	.15	.10	....	....	....	....	....
12	1.70	e .80	.70	.40	1.40	j1.00	.40	.20	.20	.15	.20	.35	....	.15	.15	.15	....	....	....	....	.35
12a	1.65	c .60	.65	.55	1.40	j1.00	.40	.20	.20	.15	.20	.35	....	.15	.15	.15	15	....	....	....	.35
13	h2.00	e .80	.70	.40	.90	1.00	.30	k .90	.20	.15	.20	.35	....	.15	.15	.15	15	....	....	....	.35
15	1.90	e .80	.70	.60	1.30	j1.10	.40	.15	.25	.20	.35	.35	....	.15	.15	.20	....	....	....	....	.35
19	1.40	c .60	.55	.70	m .90	j1.00	.40	.15	.20	.10	.35	.35	....	.15	.15	.10	....	....	.30	....	....
29	2.25	d .60	.70	.30	m .90	j1.00	.40	.15	.20	.10	.35	.35	....	.15	.15	.10	....	....	.30	....	....
87	2.00	e .80	.70	.50	1.30	1.10	.70	f3.20	.20	.50	.20	.35	.50	.15	.15	.10	....	.40	....	....	....
97	2.50	d .90	.80	.30	1.30	1.10	.70	f3.20	.20	.50	.20	.35	.50	.15	.10	.15	....	....	....	....	....
99	1.90	e .75	.70	.40	1.30	.90	.25	.10	.20	.10	.20	.30	.60	.15	.10	.10	....	1.20	....	15	....
100	2.50	d .70	.80	.30	1.30	1.00	.25	.10	.20	.10	.20	.30	.50	.15	.10	.10	....	....	....	....	....
112	1.50	e .60	.50	.60	.80	j .45	.25	.10	.20	.10	.20	.35	....	.15	.10	.10	....	e.50	....	....	....
118	2.50	d .70	.80	.30	1.40	j1.10	.40	.10	.20	.15	.20	.35	....	.15	.10	.10	....	....	....	....	.30
120	1.75	.60	.60	.30	.90	.90	.30	.15	.15	.10	.20	.35	....	....	.10	....	....	....	....	....	.35
200	2.50	d .70	80	.30	1.30	i1.05	.25	g1.10	.20	.50	.20	.35	.50	.15	.10	.10	....	40	.80	....	....
212	1.80	d .70	.30	.30	.80	j .45	.25	.10	.20	.10	.20	.35	....	.15	.10	.10	....	e .45	....	15	....
2100	2.40	d .60	.80	.30	1.20	1.00	.25	.10	.20	.10	.20	.35	....	.15	.10	....	....	.15	....	....	.30
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	e .45	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....

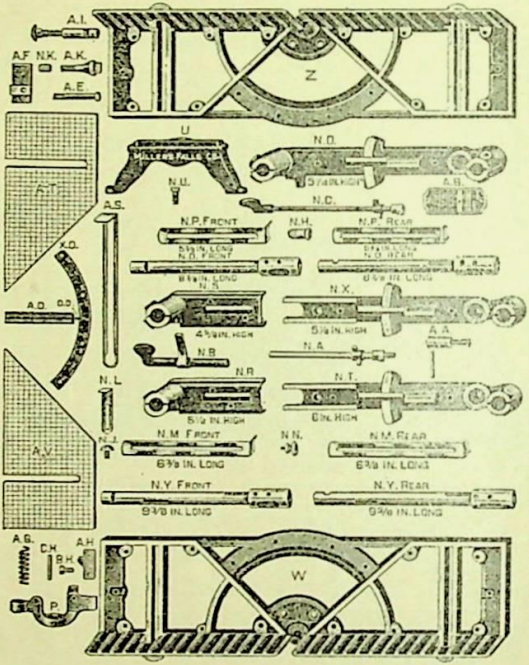
a—includes ratchet mechanism; b—includes two parts; c—per pair; d—per set of three jaws; e—includes cone bearing; f—includes two gear bearings and speed shifter; g—includes crank bearing and ratchet stud; h—includes small gear and pin for same; i—has ratchet plate and two pins; j—includes gear arber; k—crank complete with all screws; m—cast-iron frame only.

Note—When ordering parts please specify the number of the Drill, and the name of part wanted. Attention to this detail will avoid any chance of error.

MILLERS · FALLS · MASS.

PARTS FOR LANGDON ACME MITRE BOXES

Nos. 68–75



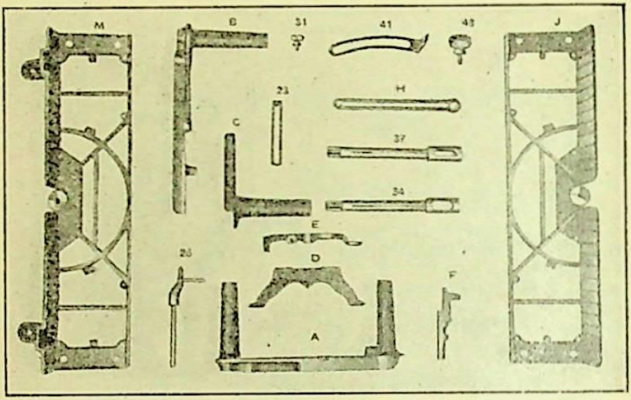
PARTS FOR LANGDON ACME MITRE BOXES

(Nos. 68–75)

AAA	Binder	for sizes 2 and 2½ box	$ .10
AAB	Index Plate	" all sizes of boxes	.25
AAD	Gib	" " " "	.30
AAE	Gib Screw	" " " "	.10
AAF	Binding Strap	" " " "	.15
AAG	Spring	" " " "	.10
AAH	Stop Lever Strap	" " " "	.10
AAI	Stock Rest	" " " "	.30
AAK	King Bolt	" " " "	.15
AAS	Length Gauge	" " " "	.20
AAT	Right Hand Bottom Board	" " " "	.75
AAV	Left Hand Bottom Board	" " " "	.75
BBH	Stop Lever Strap Screw.	" " " "	.10
CCH	Stop Lever Pin	" " " "	.10
NNA	Stop Lever Rod	" sizes 2 and 2½ box	.35
NNB	Thumb Lever	" " " " " "	.25
NNC	Thumb Stop Lever	" size 1 box	.50
NND	Saw Guide Front	" sizes 1 and 2 box	.90
NNE	Saw Guide Rear	" " " " " "	.90
NNH	Elevator	" all sizes of boxes	.50
NNJ	Guide Stop Screw	" " " "	.10
NNK	King Bolt Stop Screw	" " " "	.10
NNL	Guide Stop	" " " "	.10
NNM	Stop Gauge Front and Rear	" size 2½ box	.15
NNN	Stop Gauge Thumb Screw	" all sizes of boxes	.20
NNO	Swinging Lever	" size 1 box	2.60
NNP	Stop Gauge Front and Rear	" sizes 1 and 2 box	.10
NNR	Sliding Front Post.	" size 2½ box	1.20
NNS	Sliding Front Post	" " 2 box	1.10
NNT	Swinging Lever	" " 2½ box	2.45
NNU	Leg Screw	" all sizes of boxes	.10
NNX	Swinging Lever	" size 2 box	2.45
NNY	Saw Guide Front	" " 2½ box	.95
NNY	Saw Guide Rear	" " " "	.95
OOO	Indicator	" all sizes of boxes	.10
P	Stop Lever	" " " "	.25
U	Leg	" " " "	.35
WW	Bed and Back	" size 2½ box	6.15
XXO	Graduated Arc	" all sizes of boxes	.55
Z	Bed and Back	" sizes 1 and 2 box.	6.15

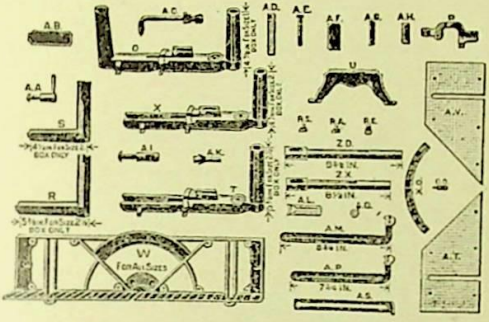
Parts NO, P, NR, NS, NT, U, W, NX and Z have corresponding letters cast in them, so, if in doubt, reference may be made to the castings.

PARTS FOR NEW LANGDON IMPROVED
Nos. 29, 32, 33 and 34
and
NEW LANGDON MITRE BOXES
Nos. 17, 23 and 25



Part No.	Used on New Langdon	Used on New Langdon Imp.	Name of Part	Price
A	Size 1	Size 1	Swinging Lever	$2.10
B	" 2	" 2	Swinging Lever	1.20
C	" 2	" 2	Sliding Post	1.05
D	" 1-2-2½	" 1-2 2½	Legs	.25
E	" 1	" 1	Stop Lever	.20
F	" 2-2½	" 2-2½	Stop Lever	.25
H	" 1-2-2½	" 1-2-2½	Gib	.45
K	" 2½	" 2½	Sliding Post	1.15
J	" 1-2	"	Bed and Back	5.20
Y	" 2½	"	Bed and Back	5.20
M	"	" 1-2	Bed and Back	5.20
N	"	" 2½	Bed and Back	5.20
L	" 2½	" 2½	Swinging Lever	1.75
23	" 1-2-2½	" 1-2-2½	Stop Gauge—Front	.10
26	" 2-2½	" 2-2½	Thumb Lever, complete	.25
31	" 1-2-2½	" 1-2-2½	Thumb Screw	.10
32	" 1-2	" 1-2	Stop Gauge—Rear	.10
33	" 2½	" 2½	Stop Gauge—Rear	.10
34	" 1	" 1	Front Guide	.85
35	" 2	" 2	Front Guide	.85
36	" 2½	" 2½	Front Guide	.85
37	" 1-2	" 1-2	Rear Guide	.85
38	" 2½	" 2½	Rear Guide	.85
39	" 1-2	" 1-2	Bottom Boards (Right or Left)	.25
40	" 2½	" 2½	Bottom Boards (Right or Left)	.25
41	"	" 1-2	Circular Arms (Right or Left)	.25
42	"	" 2½	Circular Arms (Right or Left)	.25
43	"	" 1-2-2½	Circular Arm Thumb Screws	.15

PARTS FOR OLD STYLE LANGDON ACME MITRE BOX



Patent No.	Name of Part		Price, each
AAA	Binder	for sizes 2 and 2½ box	$0.10
AAB	Index Plate	" all sizes of boxes	.25
AAC	Thumb Stop Lever	" " " "	.50
AAD	Gib	" " " "	.30
AAE	Gib Screw	" " " "	.10
AAF	Binding Strap	" " " "	.15
AAG	Spring	" " " "	.10
AAH	Stop Lever Strap	" " " "	.10
AAJ	Stock Rest	" " " "	.30
AAK	King Bolt	" " " "	.15
AAL	Guide Stop	" " " "	.10
AAM	Elevator Bar	" size 2½ box	.30
AAO	Washer	" all sizes of boxes	.10
AAP	Elevator Bar	" sizes 1 and 2 box	.30
ASS	Length Gauge	" all sizes of boxes	.20
ATT	Right Hand Bottom Board	" " " "	.75
AVV	Left Hand Bottom Board	" " " "	.75
O	Swinging Lever	" size 1 box	2.60
OOO	Indicator	" all sizes of boxes	.10
P	Stop Lever	" " " "	.25
R	Sliding Front Post	" size 2½ box	1.15
RAA	Guide Stop Screw—Rear	" all sizes of boxes	.10
RFE	Elevator Stop Screw	" " " "	.10
RSS	Guide Stop Screw—Front	" sizes 2 and 2½ box	.10
S	Sliding Front Post	" size 2 box	1.10
T	Swinging Lever	" size 2½ box	2.45
U	Leg	" all sizes of boxes	.35
W	Bed and Back	" size 2½ box	6.15
X	Swinging Lever	" size 2 box	2.45
XOO	Graduated Arc	" all sizes of boxes	.50
ZDO	Saw Guide	" size 2½ box	.90
ZXX	Saw Guide	" sizes 1 and 2 box	.90
Z	Bed and Back	" " " "	6.25

Parts O, P, R, S, T, U, W and X, have corresponding letters cast in them, so, if in doubt, reference may be made to the castings.

PARTS FOR NO. 115 AUTOMOBILE JACK

Base	$1.95	Pinion Gear Shaft	$ .10
Inner Lift Screw	.50	Lift Screw Cap	.20
Outer Lift Screw	.75	Lift Screw Cap Screw	.10
Bevel Gear	.40	Handle Complete	1.40
Pinion Gear	.20		

PARTS FOR NO. 130 AUTOMOBILE JACK

Base	$2.30	Pinion Gear Shaft	$ .10
Inner Lift Screw	.50	Lift Screw Cap	.20
Outer Lift Screw	1.10	Lift Screw Cap Screw	.10
Bevel Gear	.45	Handle Complete	1.80
Pinion Gear	.20		

PARTS FOR NO. 135 AUTOMOBILE JACK

Base	$1.20	Pinion Gear Shaft	$ .10
Inner Lift Screw	.35	Lift Screw Cap	.15
Outer Lift Screw	.50	Lift Screw Cap Screw	.10
Bevel Gear	.25	Handle Complete	.95
Pinion Gear	.20		

PARTS FOR NO. 145 AUTOMOBILE JACK

Base	$ .75	Ball Race and Bearings	$ .20
Lift Screw	.60	Gear	.30
Worm	.30	Handle, Complete	1.80

PARTS FOR NO. 160 TRUCK JACK

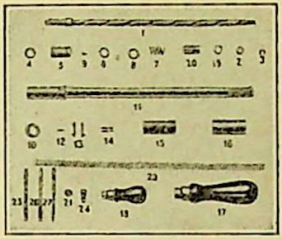
Barrel	$3.60	Ratchet Nut	$ .85
Barrel Base Plate	.10	Ball Race, Per Pair	.45
Barrel Base Plate Retaining Ring	.10	Ball Bearings, Per Set	.10
Lift Screw, with Stop Pin	1.60	Ball Bearing Separator	.10
Lift Screw Cap	.40	Ratchet Pawl, with Spring Pin and Knob	.50
Ratchet Collar	1.20	Operating Lever	.60
Ratchet Collar Retaining Ring	.20		

PARTS FOR NO. 165 TRUCK JACK

Barrel	$2.20	Ratchet Nut	$ .60
Barrel Base Plate	.10	Ball Race, Per Pair	.40
Barrel Base Plate Retaining Ring	.10	Ball Bearings, Per Set	.10
Lift Screw, with Stop Pin	1.10	Ball Bearing Separator	.10
Lift Screw Cap	.40	Ratchet Pawl, with Spring, Knob and Pin	.50
Ratchet Collar	.80	Operating Lever	.60
Ratchet Collar Retaining Ring	.20		

PARTS FOR SPIRAL RATCHET SCREW DRIVERS

Nos. 51-52-57 and Nos. 510-520-570

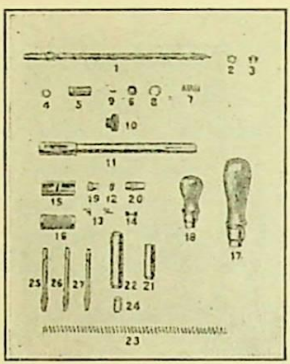


In ordering parts—please specify the number of the screw driver as well as the part number.

No.	Name of Part	No. 51	No. 510	No. 52	No. 520	No. 57	No. 570
1	Chuck and Spiral	.50	.50	.65	.65	.45	.45
2	Stop Collar	.10	.10	.10	.10	.10	.10
3	Stop Collar Washer	.10	.10	.10	.10	.10	.10
4	Chuck Collar	.10	10	.10	.10	.10	.10
5	Chuck Shell	.10	.10	.10	.10	.10	.10
6	Chuck Cam	.10	.10	.10	.10	.10	.10
7	Chuck Spring	.10	.10	.10	.10	.10	.10
8	Chuck Washer	.10	.10	.10	.10	.10	.10
9	Blade Key	.10	.10	.10	.10	.10	.10
10	Frame Nut	.10	.10	.10	.10	.10	.10
11	Frame Complete	1.05	1.10	1.25	1.30	.70	.70
12	Frame Nut Key	.10	.10	.10	.10	.10	.10
13	Pawls (2)	.10	.10	.10	.10	.10	.10
14	Pawl Spring	.10	.10	.10	.10	.10	.10
15	Cam	.12	.12	.15	.15	.12	.12
16	Shifter Sleeve	.12	.12	.15	.15	.12	.12
17	Handle and Ferrule	.35	.35	.45	.45		
18	Handle and Ferrule					.25	.25
19	Spacer	.10	.10	.10	.10	.10	.10
20	Ratchet Nut	.40	.40	.35	.35	.35	.35
21	Handle Plug		.10		.10		.10
23	Spring		.10		.10		.10
24	Spring Step		.10		.10		.10
25	Large Blade	.25	.25	.30	.30	.20	.20
26	Medium Blade	.25	.25	.30	.30	.20	.20
27	Small Blade	.25	.25	.30	.30	.20	.20

PARTS FOR SPIRAL RATCHET SCREW DRIVERS

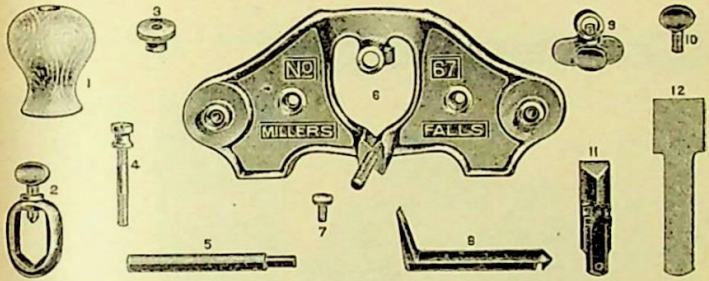
Nos. 61–62–67 and Nos. 610–620–670



In ordering parts—please specify the number of the screw driver as well as the part number

No.	Name of Part	No. 61	No. 610	No. 62	No. 620	No. 67	No. 670
1	Chuck and Spiral	.60	.60	.70	.70	.55	.55
2	Stop Collar	.10	.10	.10	.10	.10	.10
3	Stop Collar Washer	.10	.10	.10	.10	.10	.10
4	Chuck Collar	.10	.10	.10	.10	.10	.10
5	Chuck Shell	.10	.10	.10	.10	.10	.10
6	Chuck Cam	.10	.10	.10	.10	.10	.10
7	Chuck Spring	.10	.10	.10	.10	.10	.10
8	Stop Ring	.10	.10	.10	.10	.10	.10
9	Blade Key	.10	.10	.10	.10	.10	.10
10	Lock Cam Complete	.50	.50	.50	.50	.30	.30
11	Frame Complete	1.00	1.00	1.20	1.20	.80	.80
12	Ratchet Key	.10	.10	.10	.10	.10	.10
13	Pawls (2)	.20	.20	.20	.20	.20	.20
14	Pawl Springs	.10	.10	.10	.10	.10	.10
15	Cam	.10	.10	.10	.10	.10	.10
16	Shifter Sleeve	.15	.15	.15	.15	.10	.10
17	Handle and Ferrule	.25	.25	.30	.30		
18	Handle and Ferrule					.15	.15
19	R. H. Nut	.35	.35	.35	.35	.30	.30
20	L. H. Nut	.35	.35	.35	.35	.30	.30
21	Cell		.15				.10
22	Cell and Cap				.35		
23	Spring		.10		.10		.10
24	Spring Step		.10		.10		.10
25	Large Blade	.20	.20	.30	.30	.15	.15
26	Medium Blade	.20	.20	.30	.30	.15	.15
27	Small Blade	.20	.20	.30	.30	.15	.15

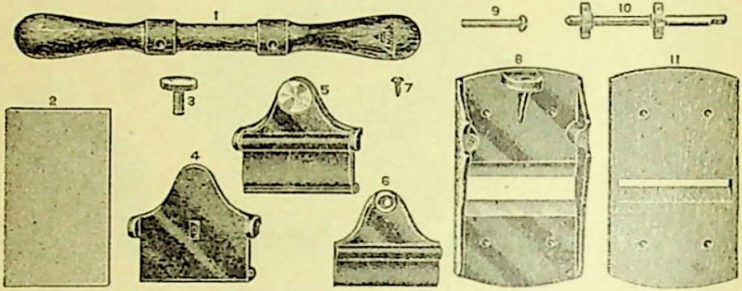
REPAIR LIST FOR ROUTERS AND RABBET PLANES



In addition to giving part numbers, also give catalog number of the tool.

Part No.	*Description*	*Price List*
1	Plane Knob	$ .30
2	Collar	.50
3	Adjusting Nut	.10
4	Knob Bolt and Nut	.20
5	Extra Attachment Stud	.10
6	Plane Bottom	2.00
7	Clamp Screw for No. 4	.10
8	Single Plane Iron	.60
9	Extra Attachment	.40
10	Thumb Screw	.10
11	Lever Cap for No. 4	.20
12	Single Plane Iron for No. 4	.40

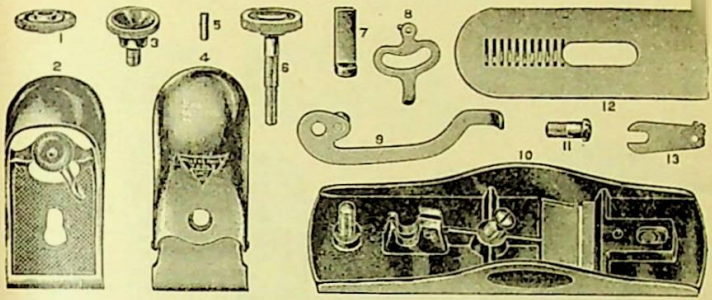
REPAIR LIST FOR SCRAPERS



In addition to giving the part number, also give catalog number of the tool.

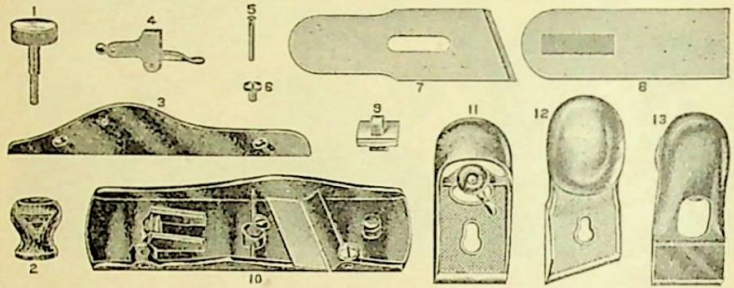
Part No.	*Description*	*Price List*
1	Plane Handle	$1.00
2	Plane Iron	.45
3	Lever Cap Screw	.10
4	Frog	.70
5	Frog Complete	1.20
6	Lever Cap	.40
7	Wood Bottom Screw (set of 4)	.10
8	Plane Bottom	2.40
9	Plane Hand Screw	.10
10	Adjusting Nut	.20
11	Wood Bottom	1.00

REPAIR LIST FOR BLOCK PLANES



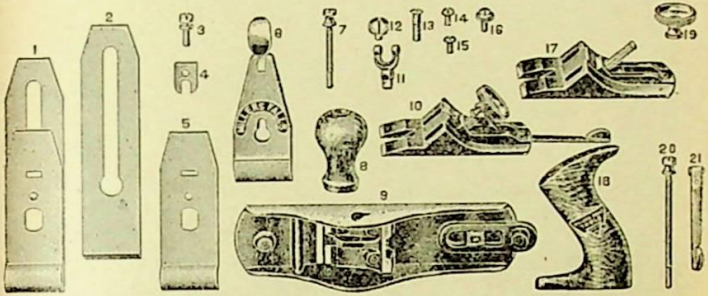
Part No.	Description for Plane	No. 16	No. 17	No. 26	No. 27	No. 36	No. 37	No. 46	No. 47	No. 56	No. 57	No. 66
1	Adjusting Nut, for all numbers	$ .10										
2	Lever Cap		$ .20	$ .20	$ .30	$ .30			$ .30		$ .20	$ .20	$ .30
3	Finger Rest Knob for all numbers	.20										
4	Lever Cap					.75	.75		.75			
5	Adjusting Lever Pin for all numbers	.05										
6	Adjusting Nut for all numbers	.20										
7	Frog Complete							.20	.20	.20	.20	.20
8	Eccentric Plate for all numbers	.20										
9	Lateral Adjusting Lever		.20	.20	.20	.20	.20	.20				
10	Bottom		1.40	1.50	1.50	1.50	1.50	1.50	1.20	1.50	1.20	1.50	1.00
11	Lever Cap Screw for all Numbers	.10										
12	Single Plane Irons for all Numbers	.45										
13	Adjusting Lever		.10	.10	.10	.10	.10	.10				

REPAIR LIST FOR BLOCK PLANES

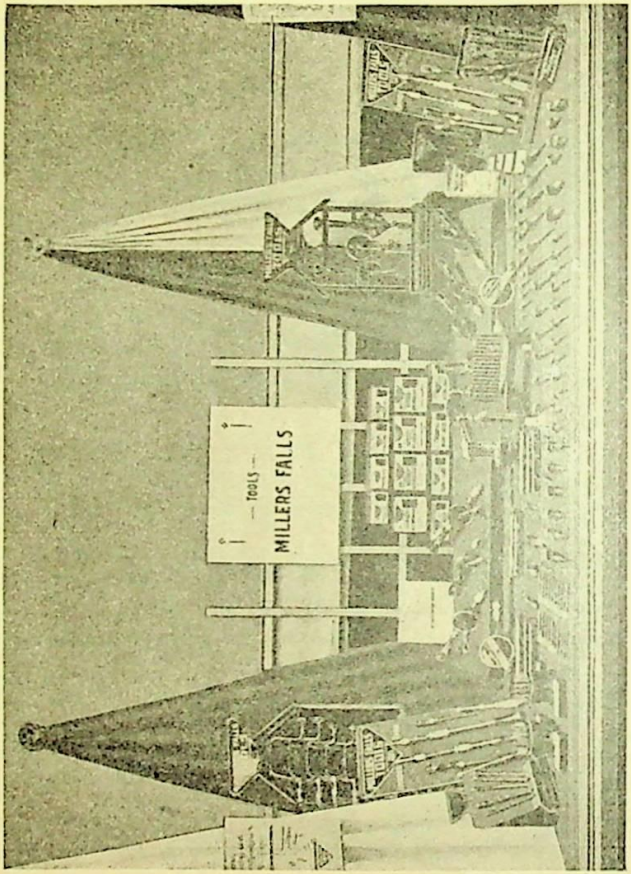


Part No.	Description for Plane	No. 3	No. 5	No. 07	No. 33	No. 45	No. 55	No. 68	No. 75	No. 87	No. 97
1	Adjusting Nut			$ .20		$ .20			$ .20		
2	Plane Knob			.30		.30		.20	.30	$ .20	$ .20
3	Detachable Side			.50							
4	Frog Complete			.20		.20	.30		.20		.30
5	Frog Pin			.05		.05	.05		.05		.05
6	Side Screw (Per Pair)			.20							
7	Single Plane-Iron			.50							
8	Single Plane Iron	$ .10	$ .20		$ .10	.45	.20	.30	.45	.30	.45
9	Frog Complete			.25		.25			.25		
10	Plane Bottom	.20	.40	1.50	.20	.50	.40	.70	.60	.50	.60
11	Lever Cap					.20			.20		
12	Lever Cap			.30							
13	Lever Cap	.10	.20		.10		.20	.20		.20	.20

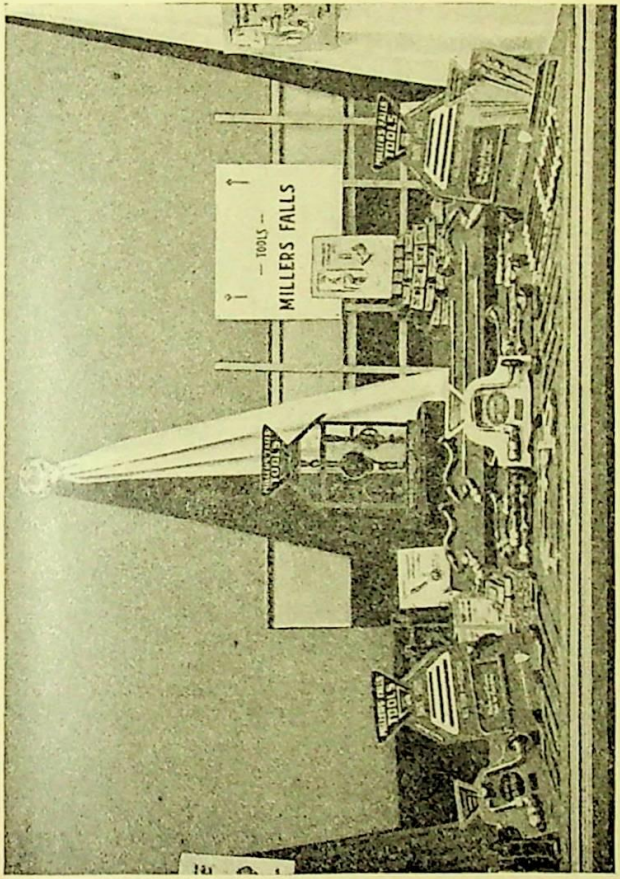
REPAIR LIST FOR BLOCK PLANES



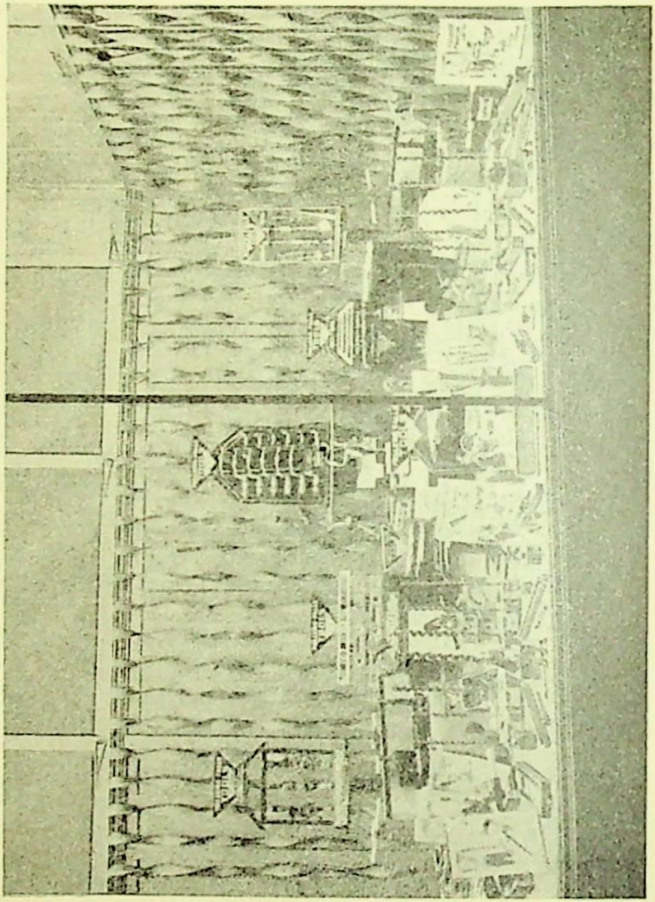
Part No.	Description of Plane No.		No. 7	No. 8 and 8c.	No. 9 and 9c.	No. 10 and 10c.	No. 11	No. 14 and 14c.	No. 15 and 15c.	No. 18 and 18c.	No. 22 and 22c.	No. 24 and 24c.
1	Double Plane Iron		$ .90	$1.00	$1.10	$1.25	$1.00	$1.10	$1.20	$1.25	$1.25	$1.30
2	Single Plane Iron		.55	.60	.65	.80	.60	.65	.75	.80	.80	.80
3	Frog Adj. Screw	All numbers	$ .10									
4	Frog Clip	" "	.10									
5	Plane Iron Cap		.35	.40	.45	.45	.40	.45	.45	.45	.45	.50
6	Lever Cap complete	" "	.50									
7	Knob Bolt and Nut	" "	.20									
8	Plane Knob	" "	.30									
9	Plane Bottom		1.70	2.00	2.00	2.40	2.40	2.40	2.40	3.30	4.70	5.70
10	Frog, Complete	" "	.70									
11	"Y" Adj. Lever	" "	.10									
12	Cap Screw	" "	.10									
13	Lever Cap Screw	" "	.10									
14	Frog Clip Screw	" "	.10									
15	Plane H'dle Screw					.10	.10	.10	.10	.10	.10	.10
16	Frog Screw	" "	.10									
17	Frog	" "	.40									
18	Plane Handle	" "	.40									
19	Adjusting Nut	" "	.20									
20	H'dle, Bolt and Nut	" "	.20									
21	Lateral Adj. Lever	" "	.20									



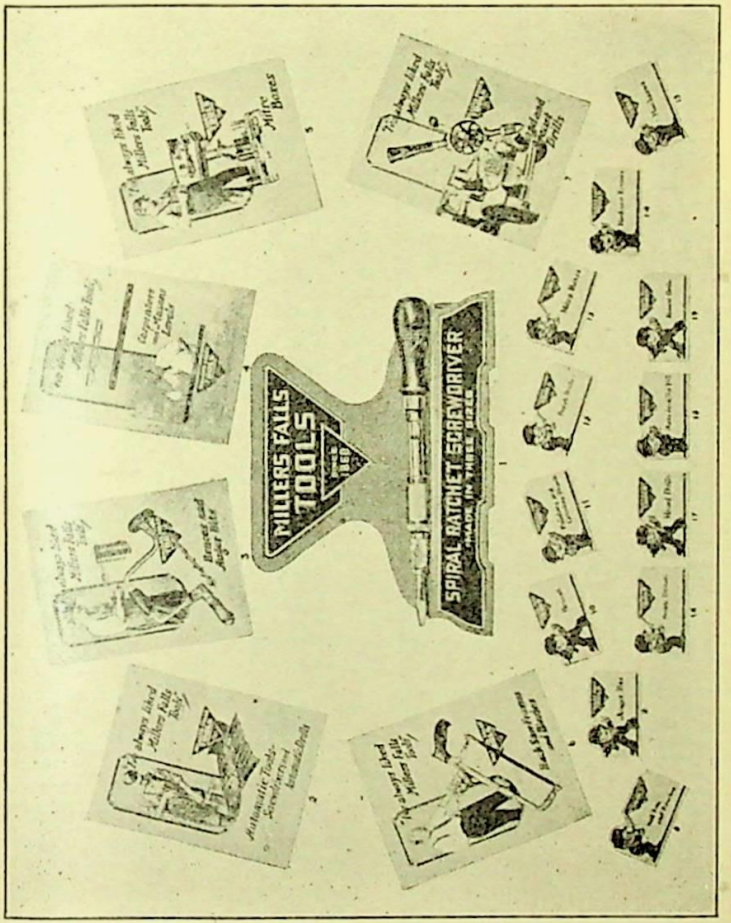
Suggested Window Display



Suggested Window Display



Suggested Window Display


MILLERS FALLS TOOLS
SPIRAL RATCHET SCREWDRIVER

INDEX

	PAGE
Angular Bitstock	137
Assembling Tool	104
Auger Bits (See Bits)	45, 46
Auger Bit Sets	47
Auger Handles	134, 135
Augers, Boring Machine	53
Augers, Hollow	137
Augers, Ring	52
Augers, Ship	51
Auto Jacks	98–102
Automatic Drills	20–22
Automatic Drill Points	22
Band Saws, Metal	90
Bearing Scraper	103
Bench Drills	117–122
Bench Drill Parts	164, 165
Bench Drill Vises	123
Bench Hook	155
Bits, Auger:	
Electricians	45
Expansive	44
Sets of	47
Ship	48
Car (Ship Auger)	50
Car (Solid Centre)	49
Car (Single Lip)	49
Bit Braces	33–43
Bit Extensions	132, 133
Bit Gauges	136
Bits, Screw Driver	31
Bitstock, Angular	137
Blades:	
Coping Saw	152
Fret Saw	154
Hack Saw	81–89
Turning Saw	153
Bobs, Plumb	155
Borers, Sill	130, 131
Boring Machine Augers	53
Boring Machines	146
Boring Machine Parts	166
Boxes, Mitre	91–96
Boxes, Mitre, Parts	168–171
Braces:	
Corner	42
Drill	43
Plain or Sleeve	41, 42
Ratchet	33–40
Whimble	43
Brace Parts	162, 163
Breast Drills	63–72
Breast Drill Parts	167
Brushes, Wire Wheel	149
Brushes, Carbon Removing	149
Buffing Wheels	149
Car Bits	49
Carbon Removing Brushes	149
Carving Tool Sets	156, 157
Center Punches	110
Chain Drills	128, 129
Chuck and Drills for Spiral Screw Drivers	27
Chucks	124–127
Coping Saws	151, 152
Coping Saw Blades	152
Corner Brace	42
Cutters, Glass	138, 139
Drill Brace	43
Drills:	
Automatic	20–22
Bench	117–122
Breast	63–72
Chain	128, 129
Hand	54–62
Ratchet	150
Drill Parts, Hand and Breast	167
Drill Parts, Bench	164, 165
Drill Points, Automatic	22
Drill Points, Hand	62
Drive Punches	112, 113
Electric Toolshop	147
Expansive Bits	44
Extensions, Bit	132, 133
File Handle	150
Frames:	
Coping Saw	151, 152
Hack Saw	73–80
Jeweler Saw	154
Turning Saw	153
Fret Saws	153
Fret Saw Blades	154
Gauges, Bit	136
Gauge, Jointer	133
Glass Cutters	138, 139
Grinders, Valve	103, 104
Grinding Heads	142, 143
Grinding Wheels	149
Hack Saw Blades	81–89
Hack Saw Frames	73–80
Hand Drills	54–62
Hand Drill Parts	167
Hand Drill Points	62
Handles, Auger	134, 135
Handle, File	150
Hand Vises	159, 160
Heads, Polishing and Grinding	140–143
Holders, Tool	144, 145

INDEX (Continued)

	Page
HHole Saws	148
HHollow Auger	137
HHook, Bench	155
HHouse Jacks	158
JJacks, Auto	98–101
JJacks, House	158
JJack Parts	172
JJacks, Truck	102
JJeweler Saws	154
JJointer Gauge	133
JJoist Tools	130, 131
LLathe Chucks	127
LLathe, Electric	147
LLevels, Carpenters'	15, 16
LLevels, Masons'	17, 18
MMachine Bits	53
MMachine, Boring	146
MMitre Boxes	91–96
MMitre Box Parts	168–171
NNail Sets	108, 109
PPlanes, Adjustable Iron	6, 7
Block	8–11
Rabbet	12
Router	12
Scraper	13
Scrub	13
PPlane Parts	175–179
PPlumb Bobs	155
PPoints, Automatic Drill	22
PPoints, Hand Drill	62
PPolishing Heads	140–143
PPunches, Center	110
Drive	112, 113
Prick	111
Sets	114–116
RRatchet Drills	150
RRatchet Screw Drivers	28, 29
RRatchet Tap Wrench	105
RRepair Lists:	
Auto and Truck Jack	172
Bench Drill	164, 165
Boring Machine	166
Braces	162, 163
Hand and Breast Drill	167
Mitre Boxes	168–171
Plane	175–179
Spiral Screw Driver	173, 174
Ring Ship Augers	52
SSaws, Band	90
SSaws, Coping	151, 152
SSaws, Fret	153
SSaws, Hack Blades	81–89
SSaws, Hack Frames	73–80
SSaws, Hole	148
SSaws, Jeweler	154
SSaws, Turning	153
SScraper, Bearing	103
SSets, Nail	108, 109
SSets, Punches	114–116
SScrew Driver Bits	31
SScrew Drivers:	
Plain	30, 31
Ratchet	28, 29
Spiral	23–26
SScrew Driver Parts	173–174
SShip Augers	51
SShip Augers, Ring	52
SShip Auger Car Bits	50
SSill Borers	130, 131
SSpike Sets	109
TTap Wrenches	105–106
TTool Holders	144, 145
TToolshop, Electric	147
TTruck Jacks	102
TTurning Saw Blades	153
TTurning Saw Frames	153
VValve Grinders	103, 104
VVises, Bench Drill	123
VVises, Hand	159, 160
WWheels, Buffing	149
WWheels, Grinding	149
WWhimble Brace	43
WWire Wheel Brushes	149
WWrenches, Tap	105, 106

Printed in U. S. A.

Press of
The Wilson H. Lee Company
New Haven, Conn.